Ontario

Ontario Geological Survey
Open File Report 6183

Report of Activities, 2005 Resident Geologist Program

Timmins Regional Resident Geologist Report: Timmins and Sault Ste. Marie Districts

2006

Ontario

ONTARIO GEOLOGICAL SURVEY

Open File Report 6183

Report of Activities, 2005
Resident Geologist Program

Timmins Regional Resident Geologist Report:
Timmins and Sault Ste. Marie Districts

by

B.T. Atkinson, M. Hailstone, G.Wm. Seim, A.C. Wilson, D.M. Draper, A. Pace and H. Woo

2006

Parts of this publication may be quoted if credit is given. It is recommended that reference to this publication be made in the following form:

Atkinson, B.T., Hailstone, M., Seim, G.Wm., Wilson, A.C., Draper, D.M., Pace, A. and Woo, H. 2006. Report of Activities 2005, Resident Geologist Program, Timmins Regional Resident Geologist Report: Timmins and Sault Ste. Marie Districts; Ontario Geological Survey, Open File Report 6183, 88p.

© Queen's Printer for Ontario, 2006

106-05288/

© Queen's Printer for Ontario, 2006.

Open File Reports of the Ontario Geological Survey are available for viewing at the Mines Library in Sudbury, at the Mines and Minerals Information Centre in Toronto, and at the regional Mines and Minerals office whose district includes the area covered by the report (see below).

Copies can be purchased at Publication Sales and the office whose district includes the area covered by the report. Although a particular report may not be in stock at locations other than the Publication Sales office in Sudbury, they can generally be obtained within 3 working days. All telephone, fax, mail and e-mail orders should be directed to the Publication Sales office in Sudbury. Use of VISA or MasterCard ensures the fastest possible service. Cheques or money orders should be made payable to the *Minister of Finance.*

Mines and Minerals Information Centre (MMIC) Macdonald Block, Room M2-17 900 Bay St. Toronto, Ontario M7A 1C3	Tel:	(416)314-3800(local)
Mines Library 933 Ramsey Lake Road, Level A3 Sudbury, Ontario P3E 6B5	Tel:	(705) 670-5615
Publication Sales 933 Ramsey Lake Rd., Level A3 Sudbury, Ontario P3E 6B5	Tel: Fax: E-mail:	(705) 670-5691(local) 1-888-415-9845(toll-free) (705) 670-5770 pubsales@ndm.gov.on.ca

Regional Mines and Minerals Offices:

Kenora - Suite 104, 810 Robertson St., Kenora P9N 4J2

Kirkland Lake - 10 Government Rd. E., Kirkland Lake P2N 1A8

Red Lake - Box 324, Ontario Government Building, Red Lake P0V 2M0

Sault Ste. Marie - 70 Foster Dr., Ste. 200, Sault Ste. Marie P6A 6V8

Southern Ontario - P.O. Bag Service 43, Old Troy Rd., Tweed K0K 3J0

Sudbury - Level A3, 933 Ramsey Lake Rd., Sudbury P3E 6B5

Thunder Bay - Suite B002, 435 James St. S., Thunder Bay P7E 6S7

Timmins - Ontario Government Complex, P.O. Bag 3060, Hwy. 101 East, South Porcupine P0N 1H0

Toronto - MMIC, Macdonald Block, Room M2-17, 900 Bay St., Toronto M7A 1C3

This report has not received a technical edit. Discrepancies may occur for which the Ontario Ministry of Northern Development and Mines does not assume any liability. Source references are included in the report and users are urged to verify critical information. Recommendations and statements of opinions expressed are those of the author or authors and are not to be construed as statements of government policy.

If you wish to reproduce any of the text, tables or illustrations in this report, please write for permission to the Team Leader, Publication Services, Ministry of Northern Development and Mines, 933 Ramsey Lake Road, Level A3, Sudbury, Ontario P3E 6B5.

Cette publication est disponible en anglais seulement.

Parts of this report may be quoted if credit is given. It is recommended that reference be made in the following form:

Atkinson, B.T., Hailstone, M., Seim, G.Wm., Wilson, A.C., Draper, D.M., Pace, A. and Woo, H. 2006. Report of Activities 2005, Resident Geologist Program, Timmins Regional Resident Geologist Report: Timmins and Sault Ste. Marie Districts; Ontario Geological Survey, Open File Report 6183, 88p.

Mines and Minerals Division Regional and District Offices

CITY	ADDRESS	OFFICE(S)	TELEPHONE	FAX
Kenora	Suite 104, 810 Robertson St., Kenora P9N 4J2	○ ■	(807) 468-2813	(807) 468-2930
Red Lake	Box 324, Ontario Government Building, 227 Howey Street, Red Lake P0V 2M0	● ■	(807) 727-3272 (807) 727-3284	(807) 727-3553 (807) 727-3553
Thunder Bay – North	Suite B002, 435 James St. S., Thunder Bay P7E 6S7	● ■ ▼ ▲	(807) 475-1331 (807) 475-1311	(807) 475-1112 (807) 475-1124
Thunder Bay – South	Suite B002, 435 James St. S., Thunder Bay P7E 6S7	● ■ ▼ ▲	(807) 475-1331 (807) 475-1311	(807) 475-1112 (807) 475-1124
Sault Ste. Marie	Suite 200, 70 Foster Dr., Sault Ste. Marie P6A 6V8	○ ■	(705) 945-6931	(705) 945-6935
Timmins	Ontario Government Bldg., P.O. Bag 3060, Hwy 101 East, South Porcupine P0N 1H0	● ■ ▼ ▲	(705) 235-1615 (705) 235-1600	(705) 235-1620 (705) 235-1610
Kirkland Lake	10 Government Rd. E., Kirkland Lake P2N 1A2	● ■ ▲	(705) 568-4516 (705) 568-4521	(705) 568-4515 (705) 568-4515
Sudbury	Willet Green Miller Centre, Level A3, 933 Ramsey Lake Rd., Sudbury P3E 6B5	○ ● ▼	(705) 670-5735 (705) 670-5737	(705) 670-5681 (705) 670-5807
Tweed	P.O. Bag Service 43, 126 Old Troy Rd., Tweed K0K 3J0	● ■	(613) 478-3161	(613) 478-2873
Toronto	Mines and Minerals Information Centre, Room M2-17, MacDonald Block, 900 Bay St., Toronto M7A 1C3	○	(416) 314-3800	(416) 314-3797

Ontario Geological Survey
Resident Geologist Program
Report of Activities—2005

TIMMINS REGIONAL RESIDENT GEOLOGIST REPORT

CONTENTS

1. Timmins District
2. Sault Ste. Marie District

Ontario

Ontario Geological Survey
Regional Resident Geologist Program

Timmins Regional Resident Geologist (Timmins District)—2005

by

B.T. Atkinson, G.Wm. Seim, A.C. Wilson, D.M. Draper and H. Woo

2006

CONTENTS

Timmins Regional Resident Geologist District—2005

INTRODUCTION 1
MINING ACTIVITY 3
Base Metal Mining 3
Falconbridge Limited – Kidd Creek Mine 3
Falconbridge Limited – Montcalm Mine 12
Gold Mining 12
Porcupine Joint Venture 12
River Gold Mines Ltd. – Eagle River Mine 13
Industrial Minerals 14
Agrium Inc. – Kapuskasing Phosphate Operations 14
Luzenac Inc. – Penhorwood Mine 14
ADVANCED EXPLORATION 19
De Beers Canada Inc. – Victor Project 19
Liberty Mines Inc. – Redstone Mine 19
Richmont Mines Ltd. and Patricia Mining Corp. – Island Gold Project 19
St Andrew Goldfields Ltd. – Clavos Mine 20
St Andrew Goldfields Ltd. – Stock Mine 20
EXPLORATION ACTIVITY 20
Argent Resources Ltd. – Timmins Offsets Gold Project 20
Band-Ore Resources Ltd. – Thorne Property 21
Dianor Resources Inc. – Leadbetter Property 21
Eloro Resources Ltd. – Hurdman Township Property 23
First Nickel Inc. – Dundonald Property 23
Gowest Amalgamated Resources Ltd. – Gowest-New Texmont Property, Tully Township 24
Great Southern Enterprises Corp. – Rundle-Swayze Gold Project 24
Inspiration Mining Corporation – Langmuir Township Property 24
Lake Shore Gold Corp. – Thunder Creek Property 24
Lake Shore Gold Corp. – Timmins West Gold Project 25
Lake Shore Gold Corp. – Vogel Property 25
Liberty Mines Inc. – McWatters Property 25
Metalex Ventures Ltd. and Arctic Star Diamond Corp. – Kyle Property 26
Mori Diamonds Inc. – Mori Diamond Property 26
Mustang Minerals Corp. – Adams Nickel Property 26
Northern Shield Resources Inc. – Highbank Lake Property 26
Pelangio Mines Inc. – Detour Lake Gold Mine Property 27
Pele Gold Corporation – Highland Gold Property 27
Pele Mountain Resources Inc. – Festival Property 28
Platinum Group Metals Ltd. – Lakemount Property 29
Probe Mines Limited – McFauld's Lake Property (Tamarack Project) 29
Probe Mines Ltd. – Victory Property 29
Spider Resources Inc. and KWG Resources Inc. – McFauld's Lake Property 29
Spider Resources Inc. and KWG Resources Inc. – Wawa Property 29
Strike Minerals Inc. – Edwards Property 30
Sydney Resource Corporation – West Timmins 30
Temex Resources Corp. – Whitney Township Property 31
Trade Winds Ventures Ltd. – Detour Lake 32
Trigon Exploration Canada Ltd. – Viking Property 32
Vedron Gold Inc. – Buffalo Ankerite Property 32
Vedron Gold Inc. – Davidson-Tisdale Mine Property 33

Vencan Gold Corporation – Cayenne and Chili Property 33
Wallbridge Mining Company Limited and Mountain Lake Resources Inc.– Hong Kong Project 33
Young-Shannon Gold Mines Ltd. – C Prime Gold Deposit 34
RESIDENT GEOLOGIST PROGRAM STAFF AND ACTIVITIES 41
PROPERTY EXAMINATIONS 42
Smylia Lake – Sothman Township 42
Band-Ore Resources Ltd. – Thorne Property, Thorneloe Township 42
RECOMMENDATIONS FOR EXPLORATION 46
Base Metals 46
Diamonds 46
Gold 47
OGS ACTIVITIES AND RESEARCH BY OTHERS 47
Discover Abitibi 47
POLARIS Seismic Network 47
ACKNOWLEDGEMENTS 48
REFERENCES 49

FIGURES

1. Timmins Regional Resident Geologist District 2
2a. Exploration programs in the Timmins Regional Resident Geologist District (north west part) 4
2b. Exploration programs in the Timmins Regional Resident Geologist District (north east part) 5
2c. Exploration programs in the Timmins Regional Resident Geologist District (west central part) 6
2d. Exploration programs in the Timmins Regional Resident Geologist District (east central part) 7
2e. Exploration programs in the Timmins Regional Resident Geologist District (south west part) 8
2f. Exploration programs in the Timmins Regional Resident Geologist District (south east part) 9
2g. Exploration programs in the Timmins Regional Resident Geologist District (Wawa area) 10
3. Exploration programs in the Timmins Regional Resident Geologist District (Timmins area) 11
4. View of the Pamour mine headframe and mill just prior to its removal in 2004 13
5. Luzenac Inc. mill and concentrator operations at the Penhorwood Mine, Penhorwood Township 15
6. Bedrock geology of stripped and trenched exposures at the Smylia Lake occurrence, Sothman Township 43
7. Plan view of gold-bearing mineralized zones identified by diamond drilling on the Thorne property, Band-Ore Resources Ltd. 44
8. Diamond drill core from the 14 Zone, Thorne property showing pronounced foliation and alteration in metasediments in proximity to the Porcupine–Destor fault 45
9. Deformed polymictic clast-supported conglomerate with mafic matrix 45
10. Apparent lithospheric thickness (km) of northeastern Ontario, derived from seismic surface wave array analysis 46
11. POLARIS seismic monitoring station (SILO) northern Ontario, installed on extensive diabase outcrop of the Sutton Hills 48

TABLES

1. Summary of claims recorded and assessment work credit in the Timmins District, 1995–2005 3
2. Mine production and reserves in the Timmins District 15
3. Gold production in the Timmins Regional Resident Geologist District to the end of 2004. 17
4. Gold production from the Wawa area to September 30, 2005 18
5. Base metal production in the Timmins Regional Resident Geologist District to the end of 2005 19
6. Selected assay results for 2005 diamond drilling on the Timmins Offset Gold Project, Tully Township. 21
7. Diamond results from due diligence bedrock sampling – Leadbetter property. 22
8. Diamond results from 2005 diamond-drilling program – Leadbetter property 23
9. Significant assays from the Hurdmand Township property, Eloro Resources Ltd. 23
10. Selected significant assay results from the Dundonald South Zone, First Nickel Inc. 23
11. Metalex Ventures Ltd. 2005 sampling results – Kyle property 26
12. Detour Lake Gold Mine property – 2005 mineral resource estimate 27
13. Follow up sample results from Deutz Diamond occurrence – Festival property 28
14. Diamond results from 2005 Festival Property drilling program. 28
15. Results of the 2004 bulk sampling on the Wawa property, Spider Resources Inc. and KWG Resources Inc. 30
16. Selected assay results from the C Zone. 31
17. Selected assay results from the Hugh Pam Zone. 31
18. Exploration activity in the Timmins District in 2005 34
19. Exploration activity in the Wawa area in 2005 39
20. Summary of staff activities, Timmins Regional Resident Geologist Office, 2005. 41
21. Assessment files received in the Timmins District in 2005 50
22. Publications received by the Timmins Regional Resident Geologist Office in 2005 58

Timmins Regional Resident Geologist (Timmins District)—2005

B.T. Atkinson[1], G.Wm. Seim[2], A.C. Wilson[2], D.M. Draper[3] and H. Woo[4]

[1]Regional Resident Geologist, Timmins District, Resident Geologist Program, Ontario Geological Survey

[2]District Geologist, Timmins District, Resident Geologist Program, Ontario Geological Survey

[3] Cartographer and GIS Specialist, Timmins District, Resident Geologist Program, Ontario Geological Survey

[4]District Support Geologist, Timmins District, Resident Geologist Program, Ontario Geological Survey

INTRODUCTION

As metal and mineral prices continued to rise on strong demand throughout the year, exploration activities in the Timmins Regional Resident Geologist District area (Figure 1) showed a robust increase to levels not seen in the last 20 years. The optimistic outlook for the mining industry was reflected in the pace of business commerce and real estate activity in Timmins. So good was the resurgence of the mining industry that professional and skilled labour, diamond drills and mining equipment were in short supply. The trend towards larger more efficient mining companies that began in previous years resulted in a complete reconfiguration of all the major Timmins mining companies. Falconbridge Limited merged with Inco Limited to form the world's largest nickel company, while Barrick Gold Inc. and Placer Dome Inc. merged to become the world's largest gold producer. The result of the latter merger will remove Placer Dome from the Timmins gold mining landscape to be replaced by Goldcorp Inc. Consequently, Goldcorp, following the acquisition of Placer Dome's Canadian operations as part of the tripartite merger, will become Canada's leading gold producer. Although neither of the planned mergers were complete by year end, both have advanced significantly to change the corporate mine face in Timmins. With the significant increase in the price of gold, the Porcupine Joint Venture prepared to re-open the Dome Mine underground operations that closed in May 2004. At year-end, work was underway to prepare for the resumption of underground mining in the first quarter of 2006.

After extensive consultation, De Beers Canada Inc. received final permitting approvals for construction of the Victor Diamond Mine in the James Bay Lowlands, 90 km west of Attawapiskat. The company completed Impact Benefit Agreements with the affected First Nations communities in the James Bay Lowlands. Mine construction is set to begin at the Victor Diamond Project once winter conditions permit the establishment of a winter road from Attawapiskat to the Victor site.

Canadian Arrow Mines Ltd. completed open pit mining of 2 small, near-surface nickel-copper ore deposits at the Alexo Mine and the Kelex Zone in Dundonald and Clergue townships, 15 km southwest of Iroquois Falls. Ore was trucked to the Falconbridge Limited Strathcona mill in Sudbury for custom milling.

Claim-staking activities are presented in Table 1, and exploration activities are listed in Tables 18 and 19. The number of claims staked decreased by 7.5% over the preceeding year, but the number of active claims at 64 889 was a 15% increase, reflecting the resurgence in exploration (Figures 2a-g and 3) throughout the province.

Exploration activities for the Sault Ste Marie District are described in a separate section of this report.

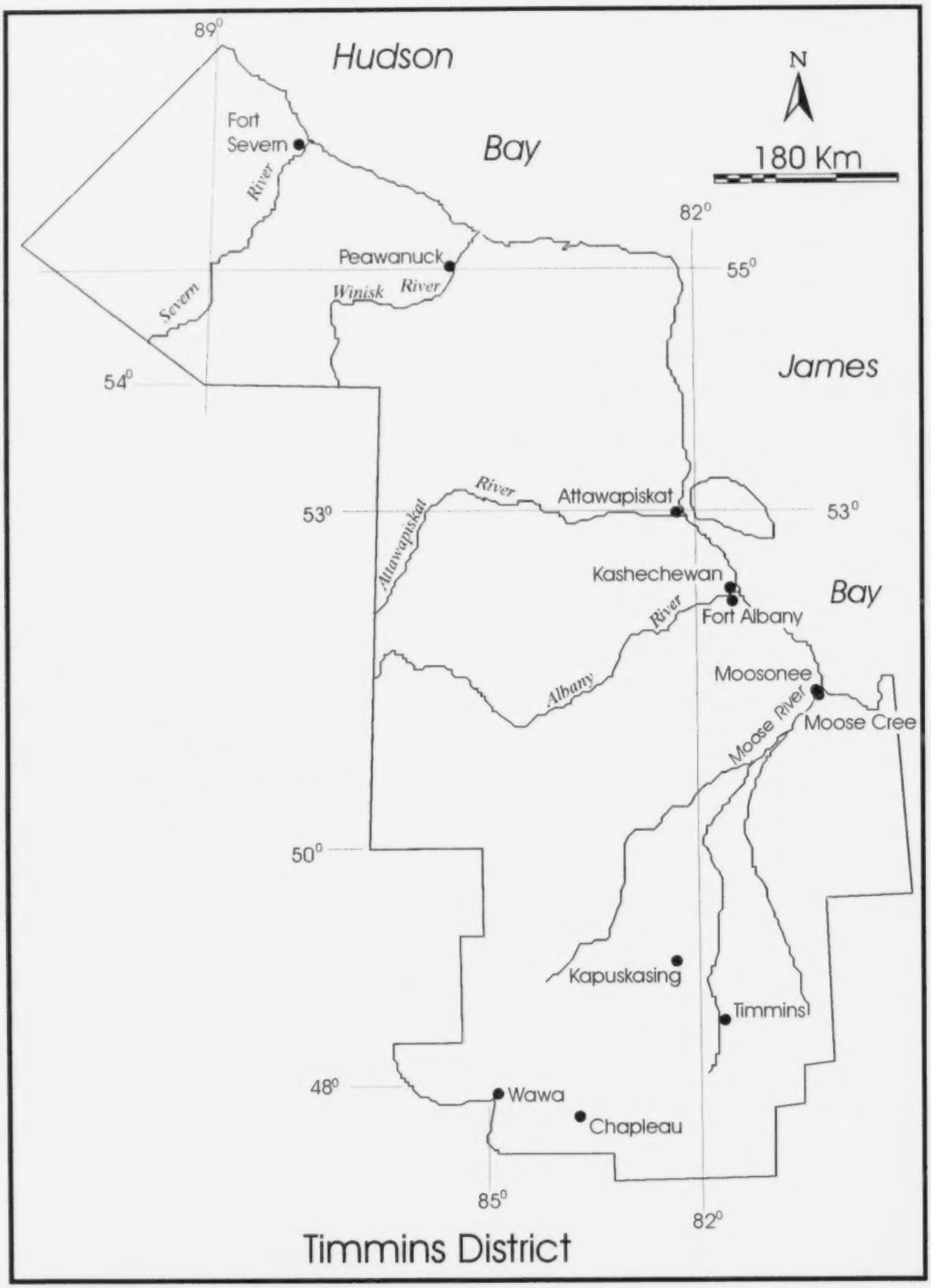

Figure 1. Timmins Regional Resident Geologist District.

Table 1. Summary of claims recorded and assessment work credit in the Timmins District, 1995–2005.

Year	Claim Units Recorded	Claim Units Cancelled	Claim Units Active	Diamond Drilling ($)	Physical Work ($)	Geotechnical Work* ($)	Total ($)
2005	16 069	13 147	64 889				6 258 661
2004	17 377	1 280	56 478	N/A	N/A	N/A	14 269 311
2003	28 1543	18 860	57 384	N/A	N/A	N/A	5 728 049
2002	11 423	14 705	39 964	N/A	N/A	N/A	5 419 054
2001	18 258	11 759	42 835	N/A	N/A	N/A	4 996 755
2000	11 035	15723	35 905	N/A	N/A	N/A	4 946 371
1999	12 312	16 557	42 270	N/A	N/A	N/A	10 665 577
1998	12 642	11 300	46 515	N/A	N/A	N/A	17 308 110
1997	10 771	16 908	45 173	N/A	N/A	N/A	10 707 864
1996	13 859	15 876	50 739	4 788 424	216 812	3 288 156	8 418 072
1995	14 376	7 769	60 705	2 003 632	202 191	2 742 497	5 052 359

** As of 1992, Geological and Geophysical Survey data are combined as Geotechnical Work.*
N/A - Not available: figures no longer reported separately as of 1997.

MINING ACTIVITY

The locations of the producing mines are indicated on Figures 2f and 2g and current mine production and reserves are indicated in Table 2. Historical gold production for Timmins and Wawa is presented in Tables 3 and 4; base metal production for Timmins is presented in Table 5.

Base Metal Mining

FALCONBRIDGE LIMITED – KIDD CREEK MINE

Kidd Creek Mine production amounted to 2 320 140 tonnes of ore grading 2.02% copper, 6.19% zinc, 0.18% lead and 78g/t silver. The daily milling rate was 6350 tonnes.

Ore reserves at year-end 2005 are:

Category	Tonnes	Copper %	Zinc %	Lead %	Silver g/t
Proven	17 836 000	1.82	5.61	0.18	54
Probable	1 178 000	2.05	4.41	0.09	33
Measured and Indicated	2 597 000	2.17	6.28	0.18	48
Inferred Resources	11 884 000	2.69	4.76	0.29	81

Mining operations included 5308 m of drifting and 2192 m of raising. Raiseboring amounted to 72 m. Mining was active on 15 levels at year-end, drawing ore from 14 stopes. Underground production and development drilling included 112 844 m of ore definition drilling and 1212 m of exploration drilling for a total of 114 056 m.

The Number 4 shaft servicing the D Mine was completed to the 9600-foot level and the ramp was extended to the 8900-foot level.

Regional exploration was mostly partnered with several junior mining companies and consisted of 10 043 m of diamond drilling that was largely directed towards testing airborne geophysical (MEGATEM®) targets.

The Kidd Creek Mine has a labour force of 463 and an additional 773 employees work at the Kidd metallurgical site. M. Boucher is the Mine Manager, D. Pickard is the Metallurgical Site Manager and D. Duff is Manager of Geology.

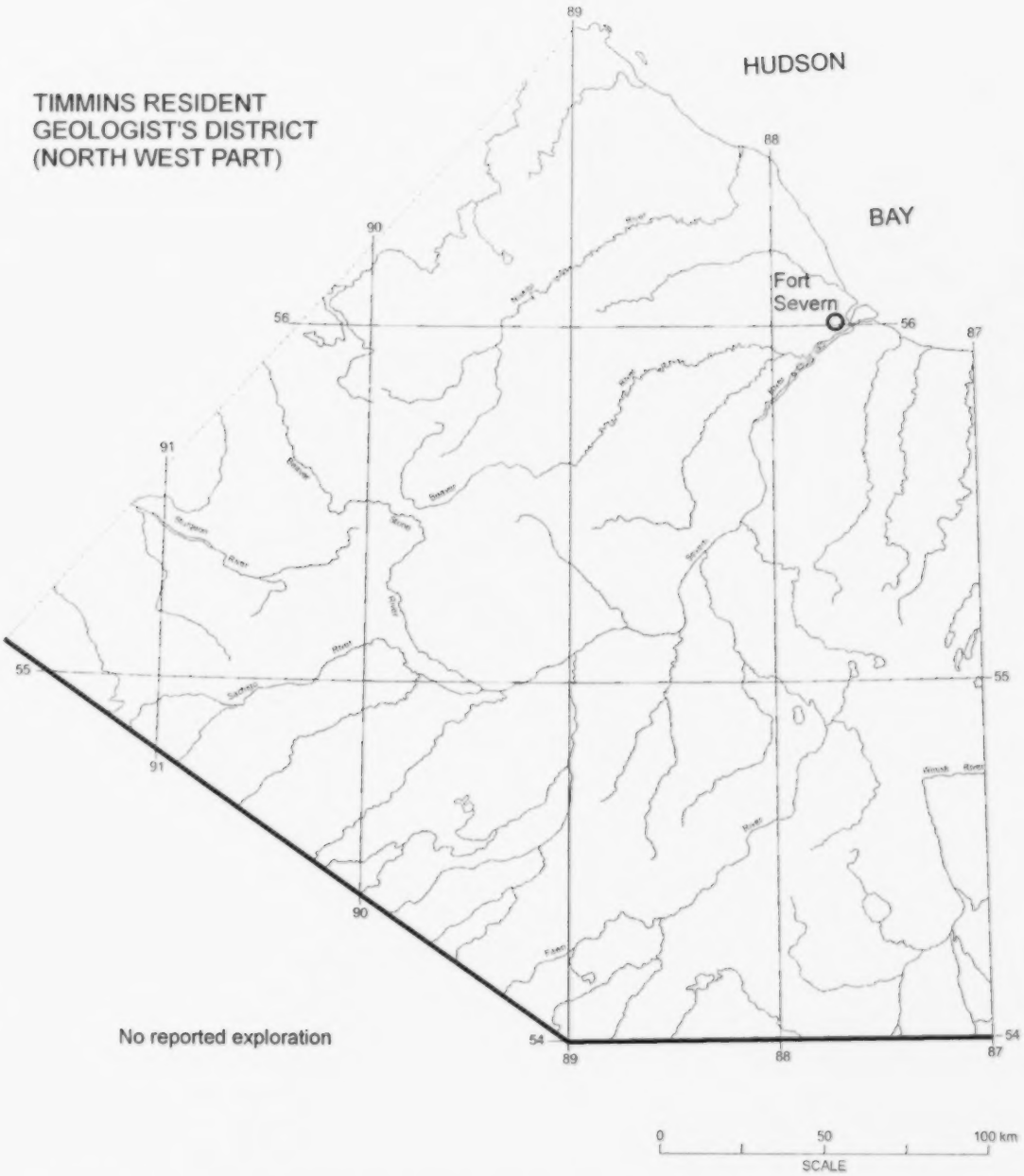

Figure 2a. Exploration programs in the Timmins Regional Resident Geologist District (north west part). Keyed to Table 18.

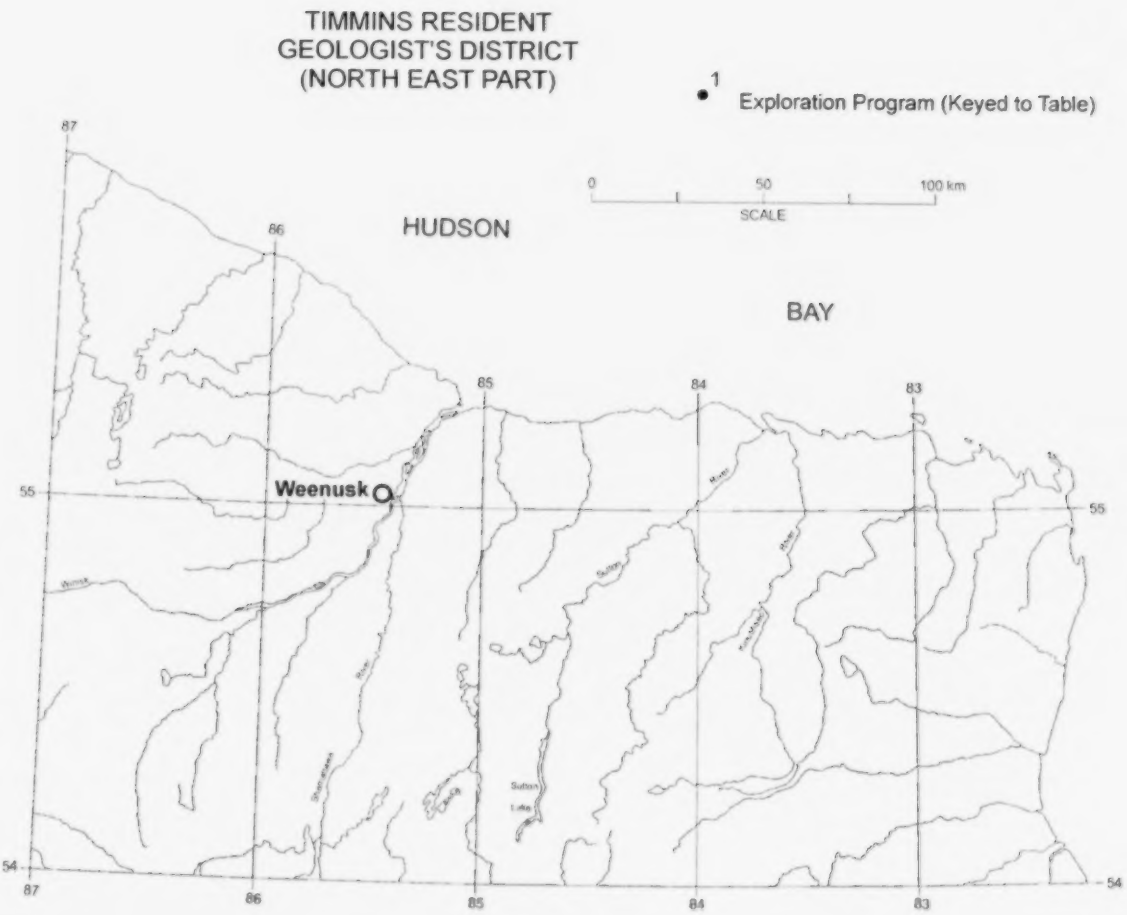

Figure 2b. Exploration programs in the Timmins Regional Resident Geologist District (north east part). Keyed to Table 18.

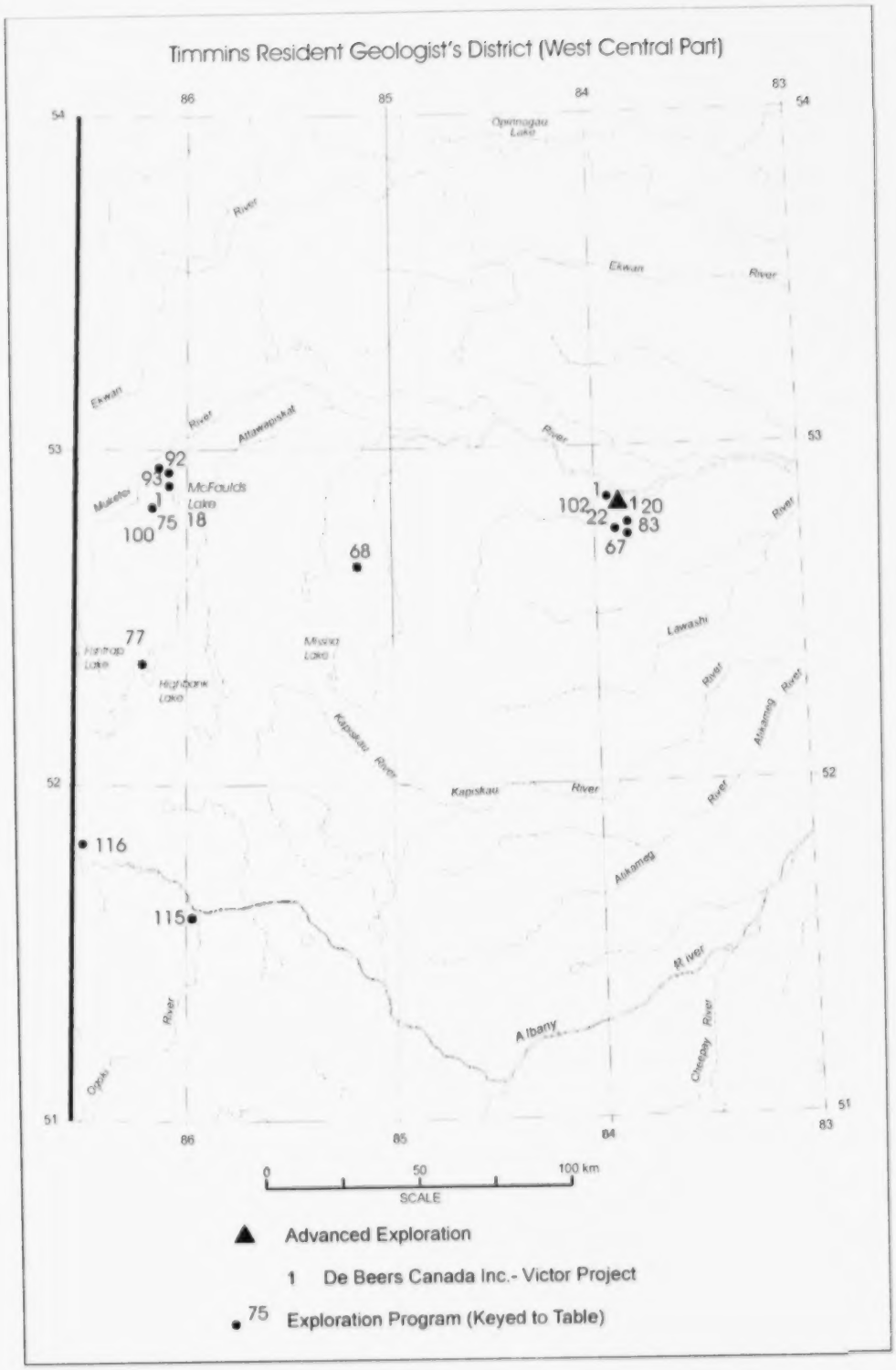

Figure 2c. Exploration programs in the Timmins Regional Resident Geologist District (west central part). Keyed to Table 18.

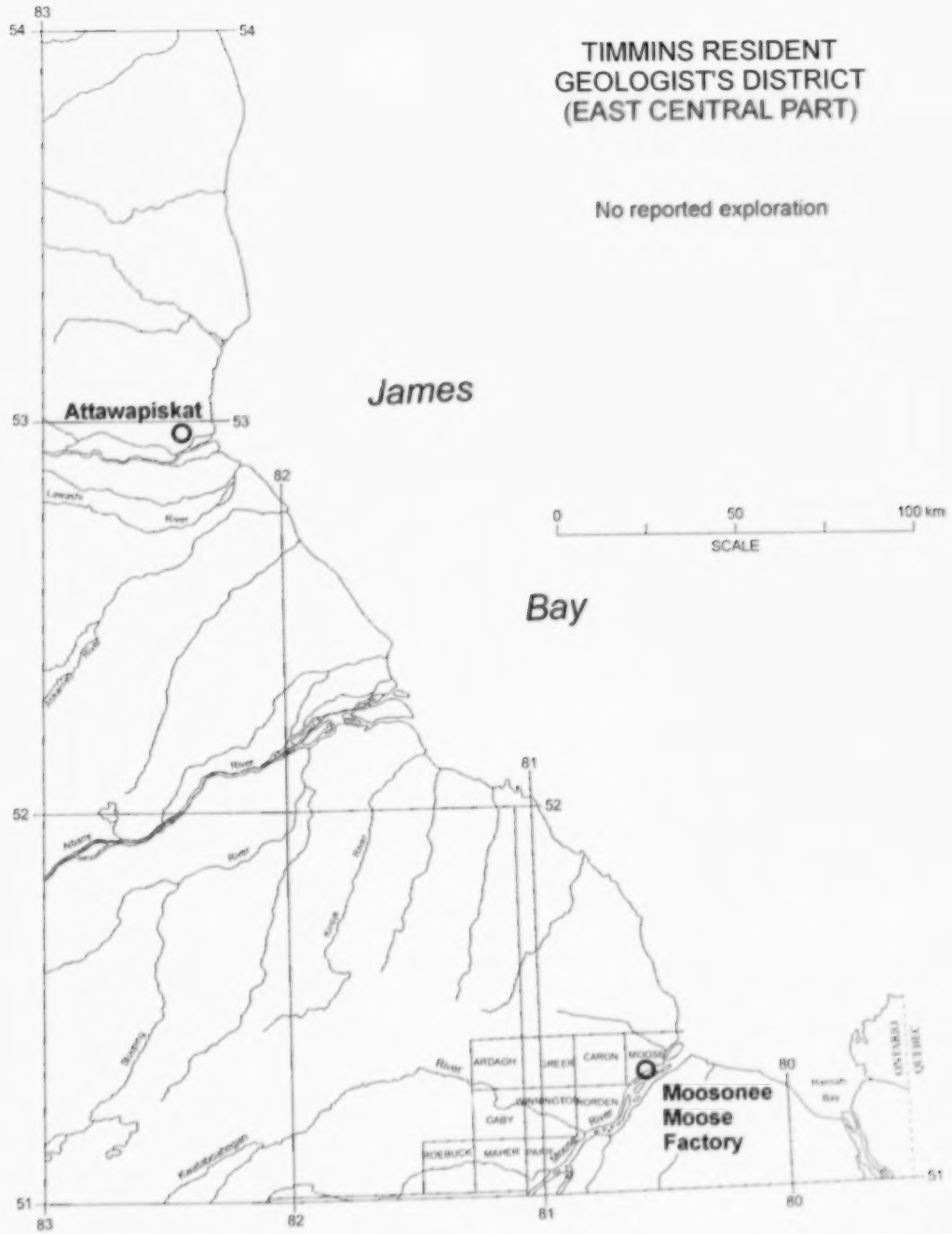

Figure 2d. Exploration programs in the Timmins Regional Resident Geologist District (east central part). Keyed to Table 18.

Figure 2e. Exploration programs in the Timmins Regional Resident Geologist District (south west part). Keyed to Table 18.

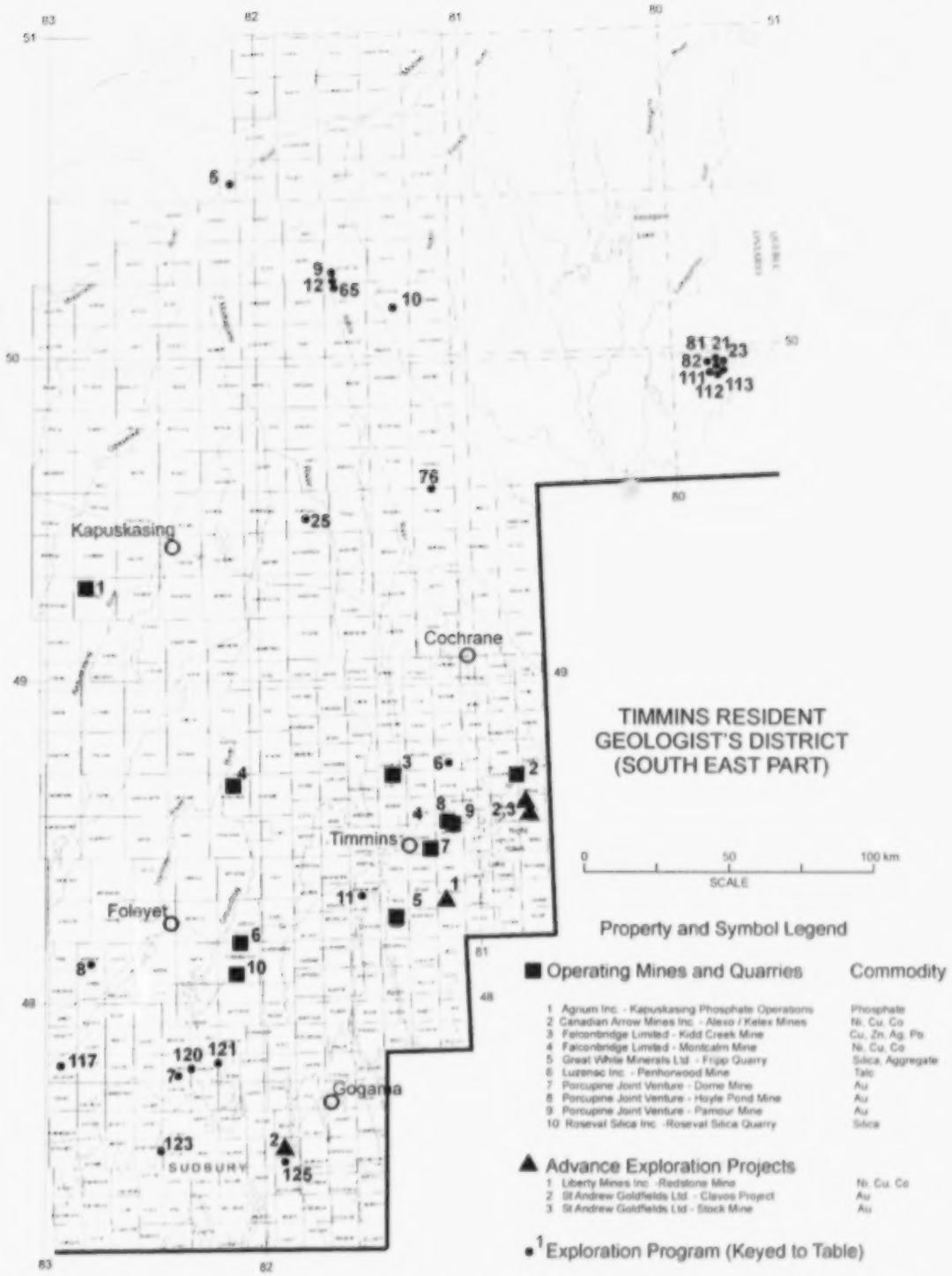
TIMMINS RESIDENT
GEOLOGIST'S DISTRICT
(SOUTH EAST PART)
SCALE
0
50
100 km
Property and Symbol Legend
Operating Mines and Quarries
Commodity
1 Agrium Inc. - Kapuskasing Phosphate Operations Phosphate
2 Canadian Arrow Mines Inc. - Alexo / Kelex Mines Ni, Cu, Co
3 Falconbridge Limited - Kidd Creek Mine Cu, Zn, Ag, Pb
4 Falconbridge Limited - Montcalm Mine Ni, Cu, Co
5 Great White Minerals Ltd. - Fripp Quarry Silica, Aggregate
6 Luzenac Inc. - Penhorwood Mine Talc
7 Porcupine Joint Venture - Dome Mine Au
8 Porcupine Joint Venture - Hoyle Pond Mine Au
9 Porcupine Joint Venture - Pamour Mine Au
10 Roseval Silica Inc. -Roseval Silica Quarry Silica
Advance Exploration Projects
1 Liberty Mines Inc. -Redstone Mine Ni, Cu, Co
2 St Andrew Goldfields Ltd. - Clavos Project Au
3 St Andrew Goldfields Ltd - Stock Mine Au
Exploration Program (Keyed to Table)
Kapuskasing
Cochrane
Timmins
Foleyet
Gogama
SUDBURY

Figure 2f. Exploration programs in the Timmins Regional Resident Geologist District (south east part). Keyed to Table 18.

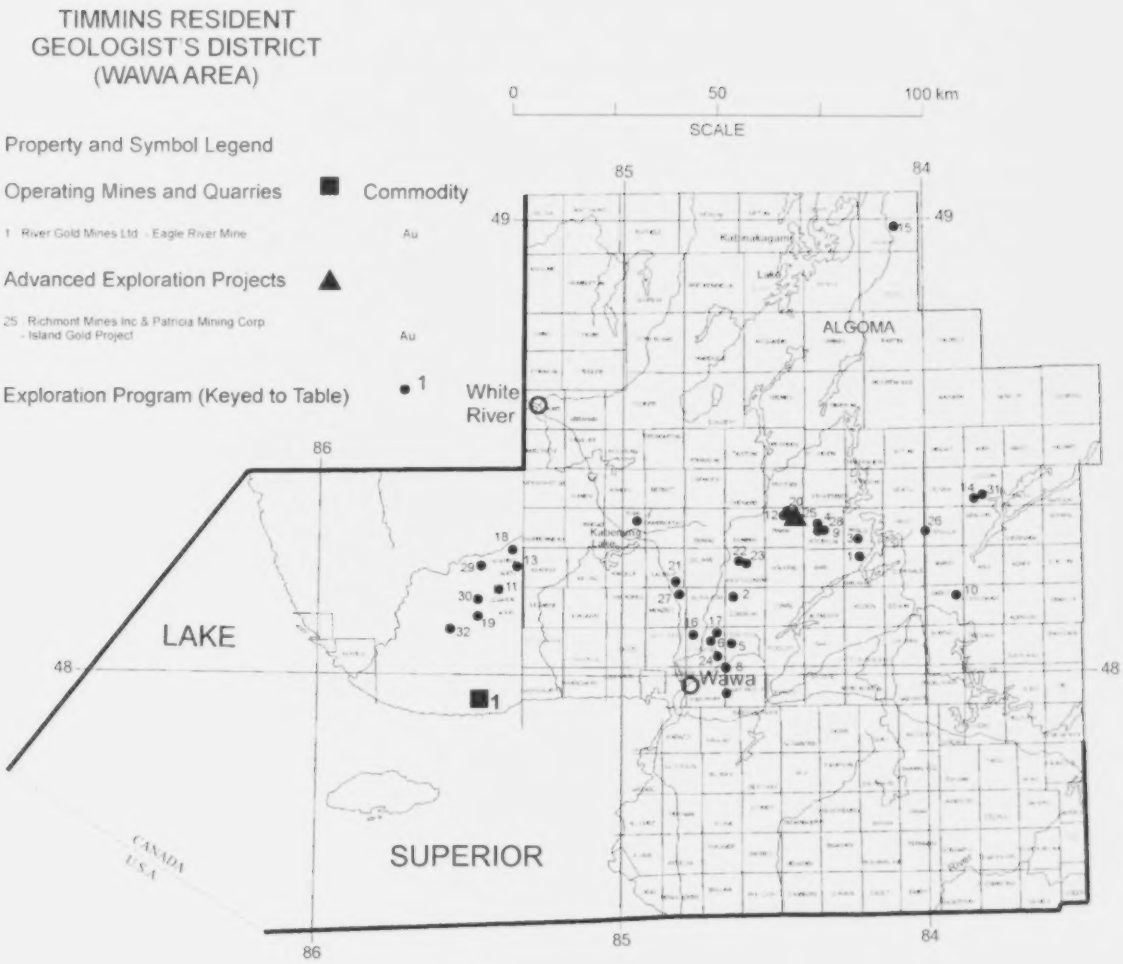

Figure 2g. Exploration programs in the Timmins Regional Resident Geologist District (Wawa area). Keyed to Table 19.

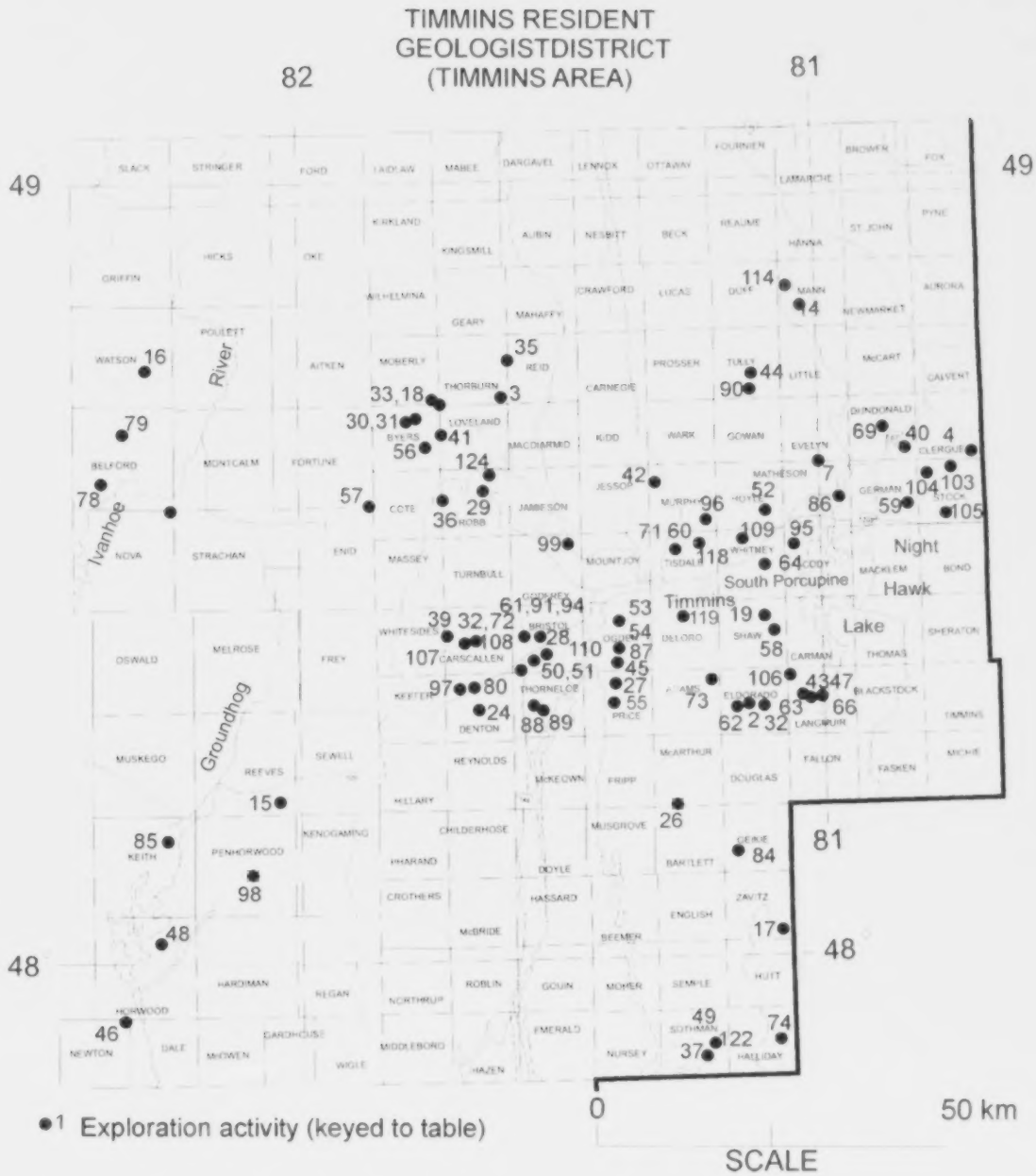

Figure 3. Exploration programs in the Timmins Regional Resident Geologist District (Timmins area). Keyed to Table 18.

FALCONBRIDGE LIMITED – MONTCALM MINE

Mining operations commenced at the Montcalm Mine on January 1, 2004. Ore is mined from underground operations via a decline ramp, then trucked from the mine site to the Kidd Metallurgical Site in Timmins. Production amounted to 793 068 tonnes, of which 750 073 tonnes grading 1.52% nickel, 0.79% copper and 0.06% cobalt were milled. The daily milling rate was 2050 tonnes. Mill recovery amounts to 82%.

Ore reserves at year-end 2005 are:

Category	Tonnes	Nickel %	Copper %
Proven	4 157 000	1.45	0.69
Probable	350 000	1.59	0.63
Total	4 507 000	1.46	0.68

Mining operations included 3521 m of drifting and 289 m of raising. There were 4 active headings and 3 active levels. Ore is extracted by open blast hole mining.

The Montcalm Mine has a workforce of 109 people. J. McDonald is the Mine Manager.

Gold Mining

PORCUPINE JOINT VENTURE

The Timmins operations of Placer Dome (CLA) Limited and Kinross Gold Corporation were merged in 2002 and are now part of the Porcupine Joint Venture (PJV). Placer Dome is the operator of the PJV and owns 51%, while Kinross owns the remaining 49%. Both the Dome Mine and the Hoyle Pond Mine operated throughout the year. The underground mining operations at the Dome Mine were terminated on May 28, 2004, and open pit operations ended in December 2005. However, as a result of improved gold prices, PJV prepared to resume underground mining operations at the Dome Mine in the 1st quarter of 2006. The Hoyle Pond Mine operated as an underground mine with the ore being trucked to the Dome mill for gold recovery. Full scale mining of the Pamour Mine as an open pit operation began in the 2nd quarter of 2005. The Pamour Mine was formerly operated by Royal Oak Mines Ltd. and ceased production in 1999. Over the last 2 years, the existing mine and mill infrastructure (Figure 4) was removed and site preparation continued for developing the mine as a large open pit operation. Permitting and engineering work on re-routing Highway 101 to the south of Three Nations Lake, and diking off the north part of that lake to allow development of the open pit continued. Construction of a 14 km-long haul road from Pamour Mine to the Dome Mill was completed and ore was being trucked from the Pamour Mine to the Dome Mill.

The PJV operations employ 590 people. D. Gagnon is the Mine Manager and S. Price is the Chief Geologist.

Figure 4. View of the Pamour mine headframe and mill just prior to its removal in 2004 in preparation for developing the property as a large scale open pit mine by Porcupine Joint Venture. The open pit in the foreground was developed by Royal Oak Mines Ltd. during the 1990s. View is looking west; rocks on the south pit wall (left side of photo) are Timiskaming slates in contact with polymictic conglomerates that overlie mafic volcanic rocks of the Tisdale assemblage. The No. 51 Vein occurs in close proximity to the volcanic-sediment contact, hosted by mafic volcanic flows.

RIVER GOLD MINES LTD. – EAGLE RIVER MINE

River Gold Mines Ltd., owner of the Eagle River Mine near Wawa, merged with Wesdome Gold Mines Ltd.

The Eagle River Mine is located on the north shore of Lake Superior, approximately 50 km west of the town of Wawa, in the Mishibishu Lake greenstone belt.

Gold production for the first nine months of 2005 amounted to 42 400 ounces from 165 400 tonnes of ore milled. The grade was 8.4g/t gold. The mill achieved a gold recovery of 94.7%.

Ore reserves at the end of September 2005 were:

Category	Tonnes	Grade (g/t gold)	Ounces
Proven	138 000	10.67	53 000
Probable	61 000	12.8	25 000
Total	217 000	11.3	78 000

Measured and indicated resources are 136 000 tonnes at a grade of 15.7 g/t gold.

Mining operations to the end of September 2005 included 1290 m (20 638 tonnes) of ore development mining and 1857 m (78 399 tonnes) of waste development. In an attempt to reduce costs, mining operations were converted from long-hole mining to selective shrinkage methods during the year.

Due to recent shortages of skilled miners, the Eagle River Mine has provided training for an average of 5 mining students annually over the last 3 years.

The work force consists of 96 hourly employees and 29 staff for a total work complement of 125. Thirteen contract workers provide auxilary services. R. Price is the Mine Manager and J. Plecash is the Chief Geologist.

Industrial Minerals

AGRIUM INC. – KAPUSKASING PHOSPHATE OPERATIONS

Agrium Inc.'s Kapuskasing Phosphate Operations, located 40 km southwest of Kapuskasing, operated throughout the year. Production of phosphate ore amounted to 4 372 698 m^3 that produced 2 013 432 tonnes (dry) of mill feed. The mill produced 885 698 tonnes (dry) concentrate at a grade of 36.6% P_2O_5. The phosphate ore is a residual mineral sand derived from the natural weathering of apatite-rich carbonatite of the Cargill Carbonatite Complex. The Kapuskasing Phosphate Operations mine the apatite sand in an open pit truck and shovel operation and concentrate the apatite on site. The apatite concentrate is transported by rail to Red Water Alberta for the production of fertilizer.

At the end of 2005, reserves were:

	Tonnes	Grade % (P_2O_5)
Proven	16 250 000	24.32
Probable	18 750 000	22.49
Total	35 000 000	23.4

During the year, ore definition drilling amounted to 27 897 m and exploration diamond drilling was 1930 m. At the mill, grinding circuit upgrades increased the ore throughput from 275 dry tonnes per hour to 345 tonnes per hour. The workforce includes 73 employees. B. Neeser is the Plant Manager.

LUZENAC INC. – PENHORWOOD MINE

Production from Luzenac Inc. Penhorwood Mine amounted to 215 665 tonnes for the year at a grade of 47.2% talc. A total of 212 242 tonnes of talc ore were milled at a rate of 660 tonnes per day. The mill recovery was 62%. Talc concentrate is produced at the Penhorwood Mine site (Figure 5) and trucked 75 km to the micronizing mill in Timmins.

Ore reserves at 2005 year-end were:

	Tonnes	Grade % (talc)
Proven	7 660 000	
Probable	8 200 000	
Total	15 860 000	47.2

The Penhorwood Mine is an open pit operation that is mined on a seasonal contract basis. During the year, 800 m of ore definition drilling was completed. The Penhorwood Mine employs 23 people and 22 people work at the concentrator in Timmins. D. Marek is the Acting Mine Manager and J. Armstrong is the Concentrator Manager.

Figure 5. Luzenac Inc. mill and concentrator operations at the Penhorwood Mine, Penhorwood Township.

Table 2. Mine production and reserves in the Timmins District.

Mine	Production in 2005		Production in 2004		Reserves at end of 2005	
	Tonnage @ Grade	Total Commodity	Tonnage @ Grade	Total Commodity	Tonnage	Grade
Agrium Inc., Kapuskasing Phosphate Operations	2 013 432 tonnes @ 29.7%	885 698 tonnes @ 36.6% P_2O_5	2 009 642 tonnes	1 062 427 tonnes @ 36.7% P_2O_5	16 250 000 tonnes proven 18 750 000 tonnes probable	24.32% P_2O_5 22.49% P_2O_5
Falconbridge Limited, Kidd Creek Mine	2 320 140 tonnes @ 2.02% Cu, 6.19% Zn, 0.18% Pb and 78 g/t Ag		2 093 662 tonnes @ 2.09% Cu, 5.04% Zn, 0.20% Pb, 88 g/t Ag		19 014 000 tonnes incl. 17 836 000 t proven 1 178 000 t probable Also: 2 917 000 000 t measured and indicated and 11 884 000 t inferred	Proven grade: 1.82% Cu, 5.61% Zn, 0.18% Pb, 54 g/t Ag Probable grade: 2.05% Cu, 4.41% Zn, 0.09% Pb, 33 g/t Ag

Mine	Production in 2005		Production in 2004		Reserves at end of 2005	
	Tonnage @ Grade	Total Commodity	Tonnage @ Grade	Total Commodity	Tonnage	Grade
Falconbridge Limited, Montcalm Mine	793 068 tonnes @ 1.52% Ni, 0.79 % Cu and 0.06% Co		214 000 tonnes @ 1.32% Ni, 0.68% Cu	2825 t Ni 1455 t Cu	4 507 000 tonnes including 4 157 000 t proven and 350 000 t probable	1.46% Ni, 0.68% Cu
Luzenac Incorporated, Penhorwood Mine	212 242 tonnes @ 47.2% talc	100 815 tonnes talc	192 400 tonnes @ 47.2% talc	59 230 tonnes talc	7 660 000 tonnes proven, 8 200 000 tonnes probable	47.2% talc (recoverable)
Porcupine Joint Venture – Dome Mine	N/A	N/A	N/A		N/A	
Porcupine Joint Venture – Hoyle Pond Mine	N/A	N/A	N/A		N/A	
Porcupine Joint Venture – Pamour Mine	N/A	N/A	N/A		N/A	
River Gold Mines Ltd., Eagle River Mine	165 400[1] tonnes @ 8.4 g/t Au 36 100[2] tonnes @ 7.8 g/t Au 201 500[3] tonnes	42 400[1] ounces 8700[2] ounces 51 100[3] ounces	235 000 tons @ 0.265 opt Au	70 903 oz Au	217 000 tonnes[4] including 156 000 tonnes @10.67 g/t proven, 61 000 tonnes @ 12.8 g/t probable	11.3 g/t Au

Notes:
Abbreviations: N/A – Data not available, g/t – grams per tonne.
[1] Production to end of September 2005. [2] Estimated production for last quarter of 2005. [3] Forecast total production for 2005, including actual figures to the end of September 2005 plus forecast figures for the remainder of the year. [4] Reserves to end of September 2005.

Table 3. Gold production in the Timmins Regional Resident Geologist District to the end of 2004.

Mine Name	Township	In Production	Tons Milled	Oz. Au	Grade[1]
Ankerite/March	Deloro	1926-1935	317 769	61 039	0.19
Aquarius	Macklem	1984, 1988-89	139 634	27 117	0.19
Aunor Pamour(#3)	Deloro	1940-1984	8 482 174	2 502 214	0.30
Banner	Whitney	1927-28,-33,-35	315	670	0.13
Bell Creek	Hoyle	1987-91, 1992-94	576 017	112 739	0.196
Bonetal	Whitney	1941-51	352 254	51 510	0.15
Bonwhit	Whitney	1951-54	200 555	67 940	0.34
Broulan Porcupine	Whitney	1939-1953	1 146 059	240 660	0.21
Broulan Reef Mine	Whitney	1915-65	2 144 507	498 932	0.23
Buffalo Ankerite	Deloro	1926-53, 78	4 993 929	957 292	0.19
Cincinnati	Deloro	1914, 1922-24	3 200	736	0.23
Concordia	Deloro	1935	230	16	0.07
Coniarum/Carium	Tisdale	1913-18, 1928-61	4 464 006	1 109 574	0.25
Crown	Tisdale	1913-21	226 180	138 330	0.61
Davidson-Tisdale	Tisdale	1918-20, 1988	53 221	2 438	0.26
Delnite	Deloro	1937-64	3 847 364	920 404	0.20
(open pit)		1987-88	56 067	3 602	0.77
DeSantis	Ogden	1933, 39-42, 61-64	196 928	35 842	0.18
Detour Lake	Sunday Lk. Area	1983-99	16 005 557	1 781 858	0.111
Dome	Tisdale	1910 - 2004	95 319 560	15 413 958	0.162
Faymar	Deloro	1940-42	119 181	21 851	0.180
Fuller (Vedron)	Tisdale	1940-44	44 028	6 566	0.15
Gillies Lake	Tisdale	1921-31, 35-37	54 502	15 278	0.28
Goldhawk	Cody	1947	636	53	0.08
(open pit)		1980	40 000	3 967	0.10
Halcrow-Swayze	Halcrow	1935	211	40	0.19
Hallnor (Pamour #2)	Whitney	1938-68, 81	4 226 419	1 690 560	0.40
Hollinger- Schumacher	Tisdale	1915-1918	112 124	27 182	0.24
Hollinger	Tisdale	1910-68	65 778 234	19 327 691	0.29
Pamour Timmins Property		1976-88	2 615 866	182 058	0.07
Hoyle – Falconbridge	Whitney	1941-44,46-49	725 494	71 843	0.10
Hoyle Pond	Hoyle	1985 - 2004	5 314 817	2 039 111	0.384
Hugh-Pam	Whitney	1926, 48-65	636 751	119 604	0.19
Jerome	Osway	1941-43, 56	335 060	56 893	0.17
Joburke	Keith	1973-75, 79-81	440 117	43 571	0.10
Kingbridge/Gomak	Chester	1935-36	1 387	98	0.07
Marlhill	Hoyle	1989-91	156 800	30 924	0.199
McIntyre Pamour Schumacher	Tisdale	1912-88	37 634 691	10 751 941	0.29
(ERG Tailings recovery)		1988-89	2 549 189	18 260	
McLaren	Deloro	1933-37	876	201	0.23
Moneta	Tisdale	1938-43	314 829	149 250	0.47
Naybob (Kenilworth)	Ogden	1932-64	304 100	50 731	0.17
Nighthawk	Macklem	1995-99	1 479 607	175 803	0.12
Owl Creek	Hoyle	1981-89	1 984 400	236 880	0.12
Pamour#1 (Incl. pits 3,4 & 7) Hoyle	Whitney	1936-99	45 795 863	4 078 525	0.09
Pamour (other sources)	Whitney	1936-99	7 416 634	676 645	0.091
Paymaster	Deloro	1915-19, 22-66	5 607 402	1 192 206	0.21
Porcupine Lake (Hunter)	Whitney	1937- 40, 44	10 821	1 369	0.13
Porcupine Peninsular	Cody	1924-27,40,47	99 688	27 354	0.27
Preston	Tisdale	1938-68	6 284 405	1 539 355	0.24
Preston NY	Tisdale	1933	2 800	153	0.05

Mine Name	Township	In Production	Tons Milled	Oz. Au	Grade[1]
Preston/Porcupine Pet	Deloro	1914-15	NA	314	
Preston/Porphyry Hill	Deloro	1913-15	46	312	6.78
St. Andrew Goldfields – Stock	Stock	1989-94, 2000	815 429	129 856	0.16
Tionaga/Smith Thorne	Horwood	1938-39	6 653	2 299	0.35
Tisdale Ankerite	Tisdale	1952	14 655	2 236	0.15
Tommy Burns/ Arcadia	Shaw	1917	21	14	0.28
Vipond	Tisdale	1911-41	1 565 218	414 367	0.26
	Total [2]		**335 186 371**	**67 012 232**	**0.20**

Grade[1] ounce per ton gold

Table 4. Gold production from the Wawa area to September 30, 2005.

Mine Name	Township	In Production	Tons Milled	Oz. Au	Grade (ounce/ton)
Alden-Goudreau	Cowie	1937, 40, 43, 45	13 479	3220	0.24
Centennial	Naveau	1939-40	8612	610	0.07
Cline	Jacobson	1938-40, 1947-48	331 842	63 328	0.19
Darwin/Grace	McMurray	1902-03, 07-08, 10, 23, 25, 30, 35, 37, 40, 43-44	45 528	15 191	0.33
Deep Lake	McMurray	1936-1938, 1943	2790	1633	0.59
Eagle River	Point Isacor	1995-2005*	*2 261 387*	*625 602*	*.28*
Edwards	Jacobson	1938 1997-2002	1537 389 309	485 140 258	0.32 0.36
Holdsworth Prospect	Corbiere	1933	60	10	0.17
Kremzar	Finan	1988-90	392 858	37 678	0.10
Magino/Algoma Summit	Finan	1930-40, 1988-92	>768 679	113 228	0.15
Magnacon	Mishibishu Lake	1989-90	165 000	15 356	0.09
Minto (includes Jubilee and Cooper)	McMurray	1929-1942	184 600	37 678	0.20
Mishi	Mishibishu Lake	2002- 2004	96 600	10 923	0.14
Murphy/Algold /Amherst	Abotossaway	1926-32, 36-38, 1940	23 211	2450	0.10
Norwalk/Manxman	Naveau	1904, 1910	820	60	0.07
Parkhill	McMurray	1902, 29, 30-38, 40-44	125 778	54 301	0.43
Ranson	Rabazo	1939	774	156	0.20
Renabie	Leeson	1947-70, 1981-91	5 583 895	1 100 000	0.20
Smith/Van Sickle	McMurray	1935-36	9228	536	0.06
Stanley	McMurray	1936	1963	84	0.04
Surluga	McMurray	1968-69, 1988-89	87 460	8898	0.10
Total			**10 495 410**	**2 231 685**	**0.213**

** Eagle River Mine figures are to the end of September 2005. Forecast production figures for all of 2005 are indicated in Table 2.*

Table 5. Base metal production in the Timmins Regional Resident Geologist District to the end of 2005.

Mine Name	Township	In Production	Ore Milled	Grades
Alexo	Dundonald	1912-19 1943-44	51 857 tons 4 923 tons	4.5% Ni, 0.55% Cu
Alexo / Kelex	Dundonald, Clergue	2004-05	17 398 tonnes	2.3% Ni, 0.23% Cu, 0.07% Co
Canadian Jamieson	Godfrey	1966-71	816 173 tons	2.44% Cu, 4.22% Zn
Jameland	Jamieson	1969-72	509 356 tons	0.99% Cu, 0.88% Zn
Kam Kotia	Robb	1943-44 1961-72	6.6 Mtons	1.1% Cu, 1.17% Zn, 0.10 oz/t Ag
Kidd Creek	Kidd	1966-present	142 702 M tonnes	2.38% Cu, 6.48% Zn, 0.26% Pb, 82 g/t Ag
Langmuir #1	Langmuir	1990-91	111 502 tons	1.74% Ni
Langmuir #2	Langmuir	1972-78	1.1 Mtons	1.43% Ni
McIntyre	Tisdale	1963-82	10 Mtons	0.67% Cu
Redstone	Eldorado	1989-92 1995-96	294 895 tons 10 228 tons	2.4% Ni 1.7% Ni
United Obalski	Godfrey	1966	Produced 240 tons Cu concentrate	

ADVANCED EXPLORATION

De Beers Canada Inc. – Victor Project

The last of 3 provincial Environmental Assessments on the Victor Project was approved by the Ontario Ministry of the Environment on October 24, 2005, and an Impact Benefit Agreement between the Attawapiskat First Nation and De Beers Canada Inc. was signed in early November 2005. Once the necessary permits have been granted, De Beers Canada Inc. will commence construction of Ontario's first diamond mine in early 2006 with full production expected to begin in 2008. Investment to date at the mine site is approximately $140 million (CAN) and the capital cost of mine construction is estimated at $982 million (CAN) (De Beers Canada Inc., project update, November 14, 2005).

The Victor Project is located 90 km west of the community of Attawapiskat in the James Bay Lowlands. The property has reserves of 27.4 million tonnes of kimberlite with a grade of 0.23 carats per tonne. On average, the open pit mine is expected to produce 0.6 million carats per year for the 12 years that the mine will be in production (De Beers Canada Inc., project update, November 14, 2005).

Liberty Mines Inc. – Redstone Mine

Liberty Mines Inc. completed de-watering of the Redstone Mine by mid-December and installed compressed air piping. The mine is developed by ramp to the 800-foot level with development on 6 levels. The last mineral resource for the property was calculated by Black Hawk Mining Inc. in 1994. They estimated a non-NI 43-101 compliant, proven and probable reserve to the 1100-foot level of 182 325 tons averaging 3.28% nickel (Black Hawk Mining Inc., 1994 Annual Report).

Richmont Mines Ltd. and Patricia Mining Corp. – Island Gold Project

During the first 11 months of 2005, Richmont Mines Ltd. funded an extensive advanced exploration and development program on the Island Gold Project, located approximately 50 km northwest of Wawa, near the town of Dubreuilville. Richmont has now spent in excess of $10 million (CAN) and has earned a 55% interest in the property. At the end of 2005, a joint venture to bring the mine into production was being formalized between the two companies (*Patricia Mining Corp., press release,* December 21, 2005).

The exploration and development program in 2005 consisted of 7903 m of underground diamond drilling (80 holes) and 2103 m of underground development. Diamond drilling confirmed the continuity of gold mineralization both vertically and horizontally. Underground development included 1883 m of waste development and 220 m of

development along the mineralized vein system. At year end, the ramp was at a vertical depth of 255 m (*Richmont Mines Inc. and Patricia Mining Corp., press release,* January 12, 2006).

In 2004, Roscoe Postle Associates Inc. estimated that the Island Gold Project has a total indicated mineral resource of 272 000 tonnes grading 12.3 g/t gold (cut) (108 000 ounces contained gold) and a total inferred mineral resource of 275 000 tonnes grading 13.1 g/t gold (cut) (116 000 ounces contained gold) (*Patricia Mining Corp., press release,* February 2, 2005).

St Andrew Goldfields Ltd. – Clavos Mine

St Andrew Goldfields Ltd. continued a program of exploration, delineation drilling and underground development at the Clavos Mine, located 50 km east of Timmins. By year end, a total of 40 000 m of diamond drilling had been completed to delineate gold mineralization. Additional underground drilling, sampling, mapping and test mining were completed to confirm the characteristics and continuity of the delineated mineralization. Development plans for the year included extension of the Clavos Decline Ramp to a depth of 320 m below surface. Total underground development in 2005 amounted to 4237 m. Extension of the ramp gave access to some of the additional gold resources defined during the underground drilling program (*St Andrew Goldfields Ltd., press release,* January 17, 2006).

A 10 km long haul road between the Clavos Mine and the Stock Mill was completed in 2005. For test mining purposes, St Andrew extracted a bulk sample of approximately 37 451 tonnes of rock. The rock was processed through the Stock Mill and 7948 ounces of gold were recovered. The approximate recovered grade of the rock was 0.21 ounces per ton gold (6.60 g/t gold) (*St Andrew Goldfields Ltd., press release,* January 17, 2006).

In 2003, Roscoe Postle Associates Inc. estimated a mineral resource of 753 000 tonnes grading 7.3 g/t gold (cut) in the total indicated category and 452 000 tonnes grading 8.9 g/t gold (cut) in the total inferred category (Roscoe et al. 2003).

St Andrew Goldfields Ltd. – Stock Mine

St Andrew Goldfields Ltd. completed approximately 3200 m of underground diamond drilling during the first half of 2005 at the Stock Mine. A sampling and limited development program also was completed in the west-central part of the mine (*St Andrew Goldfields Ltd., press release,* June 6, 2005). The Stock Mine hosts an indicated resource of 3000 tonnes grading 8.0 g/t gold (cut) and an inferred resource of 32 000 tonnes grading 8.1 g/t gold (Roscoe et al. 2003).

EXPLORATION ACTIVITY

A complete listing of exploration activities known to have occurred in the Timmins District in 2005 is presented in Table 18. Exploration activities performed in the Wawa area are presented separately in Table 19. Highlights of select company exploration projects are summarized below.

Argent Resources Ltd. – Timmins Offsets Gold Project

Argent Resources Ltd. completed a total of 8 drill holes (2067 m) on the Timmins Offsets Gold Project in Tully Township north of Timmins. Assay results are given in Table 6.

Argent decided that the gold values did not meet expectations and terminated the option to purchase an interest in the property. The property returned to Black Pearl Minerals Consolidated Inc. (*Argent Resources Ltd., press releases,* June 28, 2005, and August 29, 2005).

Table 6. Selected assay results for 2005 diamond drilling on the Timmins Offset Gold Project, Tully Township.

Hole Number	Au (g/t)	Width (m)
A 05-01	5.46	5.5
including	16.35	0.6
A 05-02	4.3	24.5
including	765.7	1.0
and	12.3	1.0
A 05-03	2.19	14.5
A05-06	3.16	6.7
A05-08	1.26	7.1
A05_09	1.38	36.4

Band-Ore Resources Ltd. – Thorne Property

Band-Ore Resources Ltd. completed 20 diamond-drill holes on the Thorne property, located in Thorneloe Township (*see* Figure 7, "Property Examinations" section). Two holes (GW-05-4 and GW-05-5) tested beneath a pit on the west shore of the Tatachikapika River that is believed to date from the 1940s. Band-Ore indicated that both holes intersected significant gold mineralization including 15.3 g/t gold over a core length of 1.5 m.

The remaining 18 holes were drilled from west to east within the Golden River deformation zone. The holes were drilled to provide insight into the complex geometry of previously discovered zones of gold mineralization. Thirteen holes tested the main portion of the Golden River East Zone. All intersected gold mineralization. Typical intersections encountered a zone 7.4 to 56.6 m wide with an average grade between 0.47 and 1.0 g/t gold. Within the wide intersection narrower intervals returned higher grade assays, with the highest grade being 22.24 g/t gold over 1.7 m in hole NZ-05-03.

Two of the 18 holes tested the No. 14 zone west of the Tatachikapika River with a best intersection of 3.33 g/t gold over 1.0 m.

Three of the 18 drill holes tested the Kapika Zone where previous diamond drilling by Esso Minerals Canada identified a resource of 292 228 tons grading 2.453 g/t gold to a depth of 200 m. The resource calculation was completed in 1985 and is non-NI-43-101 compliant.

Band-Ore also tested the Thibault horizon located about 1 km south of the Golden River Zone. This is a broad deformation and alteration zone characterized by quartz, ankerite, sericite, fuchsite and pyrite. Diamond-drill hole GS-05-6 tested the Thibault Horizon to the east of the Tatachakapika River and returned several anomalous intersections including 7.38 g/t gold over 1.0 m (core length) (*Band-Ore Resources Ltd., press release,* December 7, 2005).

Dianor Resources Inc. – Leadbetter Property

In early 2005, Dianor acquired 49 patented claims (646 ha) adjoining the original Leadbetter property in Chabanel Township, north of Wawa. The Leadbetter property now encompasses approximately 16 km^2.

Dianor Resources Inc. conducted an accelerated exploration program on the Leadbetter Property throughout 2005. The company released comprehensive results from their due diligence, bedrock sampling program from those areas where the property vendor also had collected samples. Diamonds were recovered through either caustic dissolution or attrition milling. The objectives of the attrition milling test were to extract and analyze kimberlite and diamond indicator minerals from the diamondiferous bedrock as well as to extract the diamonds. Based on the total diamonds recovered through the due diligence sampling, an overall preliminary estimated diamond grade of 1.30 carats per tonne (130 cpht) is projected for the outcrops of the diamondiferous unit (*Dianor Resources Inc., press release,* August 22, 2005).

Diamond results from the due diligence sampling are tabulated in Table 7.

Table 7. Diamond results from due diligence bedrock sampling – Leadbetter property.

Sample Location	Sample Weight (kg)	Diamond Size (microns)												Total Diamonds
		-105	+75	+105/+106	+150	+212	+300	+425	+600	+850	+1125	+1180	+1700	
Pit #1	53.6		30	49	29	16	5	12	10	4		3		158
Pit #3	107.15		28	35	25	15	9	5	11	2	2	1		133
Pit #4	84.68	0	123	58	26	26	20	15	9	3		1	0	281
Pit #5	294.64	0	30	31	29	41	39	17	17	9	3	2	2	220
Pit #6	323.91	10	29	76	99	114	150	101	85	37	3	23	6	733
Pit #7	176.02	2	28	37	31	40	26	29	18	7		3	0	221
Pit #8	90.8		104	102	40	25	23	10	9	2		1	1	317
Pit #9	166.8		49	45	5	12	5	7	8	4		0		135
Pit #10	160.35		74	98	58	43	17	14	8	7		0		319
Pit #11	136.45		13726	3434	211	14	10	3	11	2		1		17412
Pit #13	25.38	1	0	7	8	15	9	7	3	2		0	0	52
Pit #15	93.15		53	41	22	20	6	9	9	1	1	0		162
Pit #16	153.4		58	35	24	15	7	11	7	3		10		170
Pit #17	101.50							3	4	2		0	0	9
Pit #18	89.15							0	0	0		0	0	0
TOTAL	**2056.98**	**13**	**14,332**	**4,048**	**607**	**396**	**326**	**243**	**209**	**85**	**9**	**45**	**9**	**20,322**

† *Information derived from Dianor Resources Inc., press releases, February 14 to August 22, 2005.*

Dianor recovered a variety of kimberlite indicator minerals from the host rock. A high proportion of the chromite grains (12.5%) lie within the diamond inclusion field. All of the garnets lay within the lherzolite field of paragenesis (G9 garnets) and one of the ilmente grains recovered in a third-party sample was high in MgO. Although Dianor recovered no clinopyroxenes from their own samples, 4 clinopyroxene grains were reported from the vendor's data. These clinopyroxenes gave a Cr_2O_3 vs. Al_2O_3 composition indicative of a garnet peridotite source. Forsteritic olivines are predominantly of diamond inclusion type and exhibit lherzolitic and hartzburgitic paragenesis (*Dianor Resources Inc., press releases,* March 7 and August 22, 2005).

The majority of the recovered diamonds are consistently described as colourless clear crystals or fragments, or colourless frosted crystals or fragments. Approximately 40% of the remaining diamonds are variously coloured, with yellow being the most common. The diamonds are mainly octahedrons.

Dianor has subdivided the stratigraphy into metavolcanic rocks, coarse clastics (conglomerates) and fine clastics (pelites). They have identified the diamond-bearing unit as a conglomerate that occurs between a sequence of thin-bedded, alternating siltstones and sandstones and pyroclastic debris and pillow lavas (intermediate to mafic metavolcanic rocks). Dianor has interpreted the diamond-bearing unit as a series of diamond-bearing debris flows consisting of poorly sorted heterolithic conglomerate units containing cobble- to boulder-sized clasts. These units contain a variable amount of pyroclastic material. The diamondiferous unit has been traced along strike for 1700 m, with a maximum outcrop width of 500 m (*Dianor Resources Inc., press release,* September 27, 2005).

Sage et al. (1982) mapped this unit as a volcanic clast conglomerate, part of a metasedimentary sequence of wackes, conglomerates, argillites and siltstones that are closely intermingled with fine and coarse breccias of the cycle of intermediate to felsic metavolcanic rocks (2750 Ma) in this area. Ojakangas (1985) interpreted the conglomerate as an alluvial fan facies. Lenses of pyroclastic rock are interbedded with the conglomerate in many places, but few of these lenses are large enough to map at a detailed scale. The pyroclastic rocks are interlayered with the conglomerate.

A two-stage diamond-drilling program consisting of 60 holes (10 440 m) was subsequently completed. The first phase of the program was focused on confirming the subsurface continuity of the diamond-bearing conglomerate in the vicinity of the surface sampling as well as further delineating the strike extent of the conglomerate. The second phase of the program is a delineation drilling phase. The drill program has shown that the conglomerate increases in apparent width eastwards from 22.6 m in Chab 05-08 to 374.48 m in drill hole Chab 05-12. The diamondiferous unit extends for at least 1300 m in a westerly direction (*Dianor Resources Inc., press release,* September 22, 2005).

By the end of the year, Dianor released the diamond results from 4 drill holes completed in the northern sector of the property. These drill holes are from the western part of the strike extent of the diamondiferous unit. The diamond results for these four holes are summarized in Table 8.

Table 8. Diamond results from 2005 diamond-drilling program – Leadbetter property.

Drill Hole	Total Conglomerate Intersection (m)	Sample Weight (kg)	Diamond Size (microns)										Total Diamonds
			+75	+106	+150	+212	+300	+425	+600	+850	+1180	+1700	
Chab 05-08	22.6	66.09	82	56	41	21	12	5	5	2	0	0	226
Chab 05-09	54.10	118.99	217	135	117	68	52	14	6	2	1	0	612
Chab 05-10	137.3	320.59	701	358	205	146	84	37	23	4	1	1	1560
Chab 05-11	177.52	395.92	879	521	270	172	91	55	20	4	2	0	2014
Total	**391.52**	**901.58**	**1879**	**1064**	**631**	**407**	**239**	**110**	**53**	**12**	**4**	**1**	**4412**

† *Dianor Resources Inc., press releases, December 28, 2005, and January 24, 2006.*

In addition to the aforementioned exploration activities, Dianor completed a detailed airborne geophysical survey over the entire property in the fall as well as a geological survey on portions of the property. An 800 tonne composite mini-bulk sample consisting of approximately 120 individual samples, each weighing 5 to 6 tonnes, was collected from the northern and central portions of the property. Two samples of modern alluvial material lying on the south side of the bedrock exposures also were collected for diamond content evaluation (*Dianor Resources Inc, press release*, September 27, 2005).

Eloro Resources Ltd. – Hurdman Township Property

Eloro Resources Ltd. announced assay results from a shallow diamond-drilling program on their Hurdman Township property north of Smooth Rock Falls. Three drill holes extended the strike length of the Hurdman Zone some 130 m to the west. The Hurdman Zone has a strike length of 300 m and a depth of 125 m, with widths ranging from 1.5 to 35 m. Highlights of the diamond-drilling sample results are presented in Table 9.

Table 9. Significant assays from the Hurdmand Township property, Eloro Resources Ltd.

Hole Number	Zn (%)	Ag (g/t)	Width (m)
ELO-05-01	1.17	11.26	23.75
including	8.69	12.30	0.50
ELO-05-02	2.02	12.12	23.60
including	3.96	7.55	5.6

First Nickel Inc. – Dundonald Property

First Nickel Inc. completed more than 29 000 m of diamond drilling on the Dundonald property in Dundonald Township, 60 km east of Timmins. Drilling concentrated on delineating resources on the Dundonald South Zone and exploring other nickel mineralization on the property. Selected drill assay results are presented in Table 10.

Table 10. Selected significant assay results from the Dundonald South Zone, First Nickel Inc.

Hole Number	Ni (%)	Cu (%)	Co (%)	Pt+Pd+Au (g/t)	Width (m)
D04-33	3.30	-	-	1.27	1.35
D04-36	8.06	-	-	-	0.55
S04-17	5.22	-	-	1.25	2.1
S04-21	5.82	-	-	1.60	1.2
S05-30	11.19	-	-	2.36	3.0
S05-73	18.7	0.4	0.2	-	1.1
S05-75	20.9	0.31	0.25	4.97	0.8
S05-79	25.6		0.27	6.68	0.8

First Nickel completed 13 diamond-drill holes on the Dundeal property, located 1.3 km north of the Dundonald South property. Significant assays from these holes included 1.9% nickel over 2.2 m from drill hole T05-8 and 1.8% nickel over 3.0 m from drill hole T05-12 (*First Nickel Inc., press releases*, January 10, 2005, February 21, 2005, March 29, 2005, and August 18, 2005).

Gowest Amalgamated Resources Ltd. – Gowest-New Texmont Property, Tully Township

Gowest Amalgamated Resources Ltd. completed a 7-hole (2804 m) diamond-drilling program on the Gowest-New Texmont property in Tully Township. Significant assays include 6.28 g/t gold over 7.5 m in quartz breccia and 6.43 g/t gold over 4.5 m in the main vein from drill hole 05-27; and 10.15 g/t gold over 4.5 m in quartz breccia from drill hole 05-30. Five of the 9 holes intersected 1 or more zones of significant gold mineralization. The favourable gold horizon was extended an additional 400 m along strike through drilling (*Gowest Amalgamated Resources Ltd., press release*, April 6, 2005, and April 19, 2005).

Great Southern Enterprises Corp. – Rundle-Swayze Gold Project

Great Southern Enterprises Corp. entered an option agreement with Claude Rundle Gold Mine Inc. on 3 separate properties in 2004. Early in 2005, they announced a NI 43-101 compliant mineral resource estimate for the South Rundle property. This resource estimate has been defined over a strike length of 350 m and to a vertical depth of 400 m. The undiluted underground resource estimate includes a measured and indicated resource of 311 000 tonnes grading 8.53 g/t gold and an inferred resource of 238 000 tonnes grading 7.16 g/t gold. This resource was calculated using a 3.0 g/t gold cut-off grade. The South Rundle property comprises 801 acres and is located on the border of Newton and Dale townships (*Great Southern Enterprises Corp., press release*, March 29, 2005).

A mineral resource was also calculated for the Swayze property. This resource estimate has been defined over a strike length of 200 m and to a vertical depth of 400 m. The undiluted underground resource estimate includes a measured and indicated resource of 322 000 tonnes grading 7.02 g/t gold and an inferred resource of 423 000 tonnes grading 5.46 g/t gold. This resource was calculated using a 3.25 g/t gold cut-off grade. The Swayze property comprises 1143 acres and is located in Silk and Horwood townships (*Great Southern Enterprises Corp., press release*, March 29, 2005).

Inspiration Mining Corporation – Langmuir Township Property

Inspiration Mining Corporation completed over 3000 m of diamond drilling on the North Zone of its Langmuir Township property south of Timmins. Drilling tested a mineralized nickel zone approximately 426 m long. Initially, drilling occurred on 50 m centres to a maximum core length of 276 m and a maximum vertical depth of 190 m. The drilling consistently encountered 3 distinct zones of high-grade nickel mineralization surrounded by lower-grade nickel mineralization haloes. In late October, Inspiration Mining commenced in-fill drilling on 25 m sections. The nickel-bearing mineralization is hosted by serpentinized, spinifex-textured peridotitic komatiite. Sulphide concentration ranges from 5% (disseminated) to 30% (rounded blebs). The low-grade mineralized haloes (10s of metres wide) range up to 0.581% nickel while the narrow (typically ~1 m) high-grade mineralization typically assays between 1% and 2% nickel (*Inspiration Mining Corporation, press releases*, October 26, 2005, December 10, 2005, January 4, 2006, and January 10, 2006).

Lake Shore Gold Corp. – Thunder Creek Property

Lake Shore Gold Corp. completed a diamond-drilling program of 2359 m in 6 holes on the Thunder Creek property, located in Bristol Township. The 54 claim unit property, optioned from Band Ore Resources Ltd. is south of and contiguous to Lake Shore's Timmins West Gold property. Three main objectives of the drill program were to locate and test the main ultramafic complex, to follow-up on anomalous gold values in soil and rock samples, and to pursue at depth, and along strike, the gold mineralization intersected during previous diamond drilling.

Drill results confirmed the presence of at least 2 significant gold bearing zones. One zone occurs as a series of shear structures oriented southwesterly along the contact between strongly carbonitized volcanic rock and ultramafic rock and along the footwall contact of the ultramafic rock with sedimentary rock contact. A wide intercept of this zone averaged 0.823 g/t gold over 25.8 m, including 5.84 g/t gold over 2.05 m. The gold-bearing structure extends for at least 250 m along strike and to over 350 m depth.

A second deformation zone, up to 100 m in width extends easterly through the ultramafic intrusion into sedimentary and volcanic rocks. Gold mineralization occurs within shears in the deformation zone that is variably altered and intruded by felsic dikelets. Assays from the zone include 1.42 g/t gold over 2.8 m and 5.25 g/t gold over 1 m. (*Lake Shore Gold Corp. press release*, February 14, 2005).

Lake Shore Gold Corp. – Timmins West Gold Project

Lake Shore Gold Corp. continued resource expansion diamond drilling on their Timmins West Gold project in Bristol Township. Diamond drilling totalled 47 749 m in 59 holes. The company commenced pre-feasibility studies consisting of baseline environmental studies, engineering, metallurgical, mine plant design and tailings studies and permitting issues.

The company employed as many as 5 diamond-drilling rigs on the property during the year, 4 focused on sectional drilling while the fifth was used to test the Ultramafic Zone up plunge and to test structural targets east of the main surface showing. Resource expansion drilling has focused on the Footwall and Ultramafic zones. The Vein Zones and Main Zone were not targeted this year.

In May 2005, Lake Shore reported that the Ultramafic and Footwall mineralization extend an additional 450 m down plunge past the current indicated resource. Resource drilling focused on infill drilling of the 450 m section from Section 4600E to Section 4350E at 50 m intervals. On each section, 2 to 3 pilot holes and a series of branch holes targeted the Footwall and Ultramafic zones (*Lake Shore Gold Corp., press releases*, May 31, 2005, August 15, 2005, November 4, 2005, and December 8, 2005).

Lake Shore Gold Corp. – Vogel Property

Lake Shore Gold Corp. completed an eighteen-hole (4476 m) diamond-drilling program on the Vogel property in Hoyle Township, adjacent to the Hoyle Pond Mine. Ten vertical drill holes collared near the western boundary of the property tested flat-lying quartz veins. Significant assays reported by Lake Shore include 98.08 g/t gold over 0.5 m in drill hole V-05-05, 208.85 g/t gold over 0.22 m in drill hole V-05-06 and 166.79 g/t gold over 0.78 m in drill hole V-05-09.

Four drill holes tested targets in the central part of the Vogel property. These drill holes intersected auriferous horizontal and subvertical quartz-carbonate veins that returned assays of 22.5 g/t gold over 0.45 m in drill hole V-05-12, 28.88 g/t gold over 1.3 m in drill hole V-05-13 and 13.30 g/t gold over 1.5 m in drill hole V-05-15. Significant gold intersections were also returned from drill hole V-05-18 that tested a target near the eastern boundary of the property. Assay values from this drill hole include 11.04 g/t gold over 0.7 m, 18.1 g/t gold over 1 m and 32.98 g/t gold over 1 m (*Lake Shore Gold Corp., press release*, December 5, 2005).

Liberty Mines Inc. – McWatters Property

On the McWatters property in Langmuir Township, Liberty Mines Inc. completed line cutting, ground magnetic and IP surveys. Roscoe Postle Associates Inc. calculated a mineral resource of 167 400 tonnes grading 1.91% nickel (using a cut-off grade of 0.85% nickel) for the Lower Zone of the McWatters deposit. Liberty completed 6 diamond-drill holes totaling 1100 m on the property. (*Liberty Mines Inc. press release*, November 9, 2005 and www.libertymines.com).

Metalex Ventures Ltd. and Arctic Star Diamond Corp. – Kyle Property

The Kyle property, formerly known as the Northwestern Ontario Project, is a joint venture between Metalex Ventures Ltd. (91.5% interest) and Arctic Star Diamond Corp. (8.5%). The property consists of a large claim area in the James Bay Lowlands where the joint venture companies are exploring for diamonds. Metalex is the project operator. Since 2004, Metalex has been systematically testing aeromagnetic anomalies on the Kyle Project. In 2005 the company reported the discovery of the T1 diamondiferous kimberlite by testing a triaxial aeromagnetic gradiometer survey anomaly (*Metalex Ventures Ltd. and Arctic Star Diamond Corp., press release*, May 16, 2005). From an initial sample of 48 kg of kimberlite, a total of 35 diamonds, including 7 macro diamonds were recovered. About 30% of the diamonds were described as clear white colour and 50% were white with inclusions. A mini-bulk sample of approximately 3000 kg of all phases of the kimberlite was collected from a seven-hole drill program. Results for the T1 samples are detailed in Table 11. Forty-five of the recovered stones are classified as macro diamonds. Most of the recovered diamonds are reported as white, inclusion-free stones (*Metalex Ventures Ltd., press release*, January 18, 2006).

Table 11. Metalex Ventures Ltd. 2005 sampling results – Kyle property.

Sample	Sample Weight (kg)	Diamond Size Range									Total Diamonds
		1.18 - 1.70 mm	0.85 - 1.18 mm	0.600 - 0.85 mm	0.425 - 0.6 mm	0.3 - 0.425 mm	0.212 - 0.3 mm	0.15 - 0.212 mm	0.105 - 0.15 mm	<0.105 mm	
initial	44			1	6	6	6	10	3	3	35
mini-bulk 1& 2	1573.66	1	7	15	35	69	65	38	28	30	288

[1] *Metalex Ventures Inc., press releases, June 17 and November 3, 2005.*

Mori Diamonds Inc. – Mori Diamond Property

A reconnaissance program of bedrock sampling and prospecting was completed by Mori Diamonds Inc. on their claims in Chabanel and Bailloquet townships. These claims lie adjacent to, and north of, the Leadbetter property that is currently being explored by Dianor Resources Inc. Ten samples of heterolithic breccia were collected and submitted for geochemical analysis and assay. Four of the samples were sent for caustic dissolution for diamonds. A 13.92 kg sample of heterolithic breccia (Sage et al. 1982) returned 10 micro diamonds with a total weight of 0.0002 carats (Brown 2005).

The property was subsequently optioned to Metalex Ventures Ltd., who completed a reconnaissance program of heavy mineral sampling and prospecting over the claims (*Metalex Ventures Ltd., press release*, July 14, 2005). Dianor Resources Inc. later negotiated a 50% interest in Metalex's interest in this property (*Dianor Resources Inc., press release*, August 23, 2005).

Mustang Minerals Corp. – Adams Nickel Property

Mustang Minerals Corp. discovered nickel mineralization on the Adams Nickel property in Adams Township, west of the Redstone Mine. Diamond-drill hole MA05-01 intersected komatiite-hosted, discontinuous stringers to locally semi-massive sulphides consisting of pyrrhotite, pyrite, pentlandite and rare chalcopyrite. A 3.34 m thick section yielded 0.63% nickel including a 0.52 m section that assayed 1.05% nickel. Four additional drill holes were completed, but assay results were unavailable at time of writing (*Mustang Minerals Corp., press release*, April 11, 2005).

Northern Shield Resources Inc. – Highbank Lake Property

Northern Shield Resources Inc. completed a helicopter-borne electromagnetic survey over the Highbank Lake property and an extensive soil sampling program. The company recovered 4 chromitite boulders from the property. The boulders weighed between 2 and 28 kg and were found in overburden near the centre of the property. All

boulders returned anomalous platinum, palladium and nickel values. Boulder 218753 assayed 0.092 g/t gold, 0.43 g/t platinum, 1.210 g/t palladium, 0.261% nickel and 20.1% chromium (*Northern Shield Resources Inc., press releases*, October 19, 2005, December 7, 2005).

Pelangio Mines Inc. – Detour Lake Gold Mine Property

Pelangio Mines Inc. continued to explore the Detour Lake Gold Mine property in an effort to outline resources on the Mine Option including the North Walter Lake Zone that was discovered in 2004. In May 2005, Pelangio announced a new mineral resource estimate for the Detour Lake Mine property indicated in Table 12.

Table 12. Detour Lake Gold Mine property – 2005 mineral resource estimate.

Location	Indicated			Inferred		
	Tonnes	Au (g/t)	Ounces	Tonnes	Au (g/t)	Ounces
Surface to 250 m	2,479,658	2.00	159,797	15,292,459	1.73	849,449
Deep (250 to 800 m)				8,101,246	3.37	878,449
Total	2,479,658	2.00	159,797	23,393,705	2.29	1,728,042

(Pelangio Mines Inc., press release, May 24, 2005)

The new estimate includes zones and intersections in areas that would not be adversely affected by previous mine workings. The estimate is based on the concept of a large-scale, combined open pit and underground operation that would include the mining of bulk low-grade and smaller-scale high-grade resources located in nearby areas.

In 2005, Pelangio completed more than 12 000 m of diamond drilling on the Detour Lake Gold Mine property. The drilling tested numerous zones of mineralization including the North Walter Lake Zone, the M Zone, the westerly extension of the Main Zone, the Calcite Zone and the Calcite Zone West (located in the western portion of the Detour Mine property), the R Zone East (located northeast of the open pit), the BLT Zone (located to the east of the mined area) the Main Zone West Flexure and the West Pit Zone (www.pelangio.com).

Pele Gold Corporation – Highland Gold Property

Pele Gold Corporation expanded their Highland Gold property through the addition of 11 new claim groups, including 4 historic gold occurrences associated with the Gutcher Lake stock in Abotossaway Township. The Highland Gold Project now covers more than 35 km^2 of the Goudreau Lake deformation zone.

In 2005, exploration was mainly focussed on 2 shear zones, the Springbank and Talisker, near the Porter-Premier occurrence. A third shear zone, the Oban, situated approximately 4 km to the north, was sampled, and grab samples returned assays ranging from 0.2 g/t gold to 128.7 g/t gold. Surface grab samples from the Springbank Zone returned assay values as high as 39.4 g/t gold and grab samples from the Talisker Zone returned assay values ranging from 0.2 g/t gold to 66.8 g/t gold. Pele Gold Corporation is a wholly-owned subsidiary of Pele Mountain Resources Inc. (*Pele Mountain Resources Inc., press release*, June 21, 2005).

Pele completed 2 diamond-drilling programs on the Springbank and Talisker zones. A total of 18 drill holes were completed at the Springbank Zone and 14 drill holes were completed at the Talisker Zone. Significant assays from the Talisker Zone include 8.4 g/t gold over 8.16 m including 95.5 g/t gold over 0.55 m from drill hole PP-DH-05-08, 10.1 g/t gold over 2.44 m, including 36.5 g/t gold over 0.33 m from drill hole PP-DH05-14, and 12.0 g/t gold over 0.91 m including 36.9 g/t gold over 0.29 m in drill hole PP-DH05-19. The Talisker Zone is a gold-bearing shear zone that has been traced on surface for approximately 450 m (*Pele Mountain Resources Inc., press release*, August 3 and December 8, 2005, January 5, 2006).

Significant assays from the first drill program completed on the Springbank Zone include 9.9 g/t gold over 2.5 m including 13.3 g/t gold over 0.65 m in drill hole PP-DH05-01, 7.0 g/t gold over 5.35 m including 26.0 g/t gold over 0.6 m in drill hole PP-DH05-06, and 17.9 g/t gold over 2.46 m including 45.5 g/t gold over 0.45 m in drill hole PP-DH05-24 (*Pele Mountain Resources Inc., press releases*, August 16, 2005, and January 24, 2006).

Pele Mountain Resources Inc. – Festival Property

The Festival property covers an area of approximately 101[2] km at the junction of Musquash, Menzies, Lalibert and Leclaire townships. Early in 2005, Pele Mountain Resources Inc. announced additional results from a channel sampling program completed in the fall of 2004 at the Deutz diamond occurrence in the northwest corner of Musquash Township. Table 13 summarizes the results of the sampling program.

Table 13. Follow up sample results from Deutz Diamond occurrence – Festival property.

Sample ID	Channel Length (m)	Processed Weight (kg)	Sieve Size in microns							Total
			+106	+150	+212	+300	+425	+500	+600	
CS-04-032	2.3	19.9	222	118	66	47	5	5	1	464
CS-05-032	2.3	88.0	631	309	143	44	3	0	1	1131
Total for 032	**2.3**	**107.9**	**853**	**427**	**209**	**91**	**8**	**5**	**2**	**1595**
CS-04-033	2.2	19.8	62	34	13	15	4	0	0	128
CS-05-033	3.1	64.0	666	265	122	53	7	1	1	1115
Total for 033	**3.1**	**83.8**	**728**	**299**	**135**	**68**	**11**	**1**	**1**	**1243**
CS-05-03	2.2	223.7	32.0	374	177	62	20	0	0	633
TOTAL DIAMONDS		**223.7**	**1955**	**903**	**406**	**179**	**19**	**6**	**3**	**3471**

† *Information derived from Pele Mountain Resources, press release, February 23, 2005.*

A four-hole (485 m) diamond-drilling program targeted 2 diamond occurrences on the property. The Deutz and Dom Perignon occurrences were selected in order to test the size and continuity at depth of the pyroclastic flows and to outline other related facies that do not outcrop at surface. Three of the drill holes indicate that the diamond-bearing rocks form a sheet up to 70 m thick, with individual flows attaining thicknesses of at least 20 to 30 m. Drill holes DH01 and DH02 were drilled at the Deutz occurrence and DH03 was drilled at the Dom Perignon occurrence (*Pele Mountain Resources Inc., press releases,* April 12 and June 13, 2005). Results from the drilling program are detailed in Table 14.

In the late fall, Pele collected 3 separate bulk samples from the property. These included a 300 tonne sample from the Cristal occurrence and 2 samples weighing a total of 200 tonnes from the Deutz occurrence (*Pele Mountain Resources Inc., press release,* December 16, 2005). The bulk sampling results were not available at time of writing

Table 14. Diamond results from 2005 Festival Property drilling program.

Drill Hole	Sample No.	Depth (m)	Length (m)	Weight (kg)	Sieve Size in microns							Total Diamonds
					+106	+150	+212	+300	+425	+600	+850	
DH01*	1 & 2	10.6 - 73.06	62.46	116.6	2	0	0	1	0	0	0	3
DH01*	3	81.84 -91.17	9.33	17.7	3	4	0	0	0	0	0	7
DH02*	1	93.46 - 102.41	8.95	22.9	171	58	18	2	0	0	0	249
DH02*	2	106.68 - 116.50	9.82	21.9	6	3	1	1	0	0	0	11
DH03**	1	0.00 - 22.68	22.68	89.1	346	149	77	18	1	0	0	591
DH03**	2 & 3	31.94 - 69.64	37.69	414.7	378	169	63	20	4	0	1	635
DH03**	4	105.21 - 108.48	3.27	7.8	1	0	0	0	0	0	0	1

* split core ** whole core † *Information derived from Pele Mountain Resources, press release, July 20, 2005.*

Platinum Group Metals Ltd. – Lakemount Property

Following the 2004 exploration program on the Lakemount property, Platinum Group Metals Ltd. released a mineral resource estimate for the Lakemount deposit completed by Roscoe Postle Associates Inc. The mineral resource estimate includes 3.048 million tons grading 0.35% nickel, 0.20% copper, 0.13 g/t platinum, 0.09 g/t palladium and 0.5 g/t gold. All resources have been classified as inferred (Mosher and Rennie 2005).

Probe Mines Limited – McFauld's Lake Property (Tamarack Project)

Probe Mines Limited completed a three-hole diamond-drilling program of 402 m on the McFauld's Lake property (re-named Tamarack Project). Drill hole M6 intersected 7.8 m of massive sulphide mineralization that averaged 3.1% copper. The intersection was at a vertical depth of 50m. Drill Hole M7, collared 50 m west and down dip of M6, intersected the sulphide zone at 97 m vertical depth. The zone averaged 2.4% copper over 6 m, and included a high-grade interval of 3.4% copper over 2.5 m. Anomalous zinc and precious metal values are also present, including up to 800 ppm zinc, 0.3g/t gold and 9 g/t silver. Probe followed these intersections up with a deep-penetrating electromagnetic survey. Preliminary interpretation of the data indicates that the Discovery zone is over 400 m in length. The company also completed 257.4 km of airborne geophysical surveys, 72 km of line cutting and 66 km of ground geophysical surveys over the property. (*Probe Mines Limited, press release*, November 1, 2005, and December 21, 2005).

Probe Mines Ltd. – Victory Property

In the James Bay Lowlands, Probe Mines Ltd. completed airborne electromagnetic surveys over a V-shaped area to the southeast of McFauld's Lake that is interpreted to be a greenstone belt beneath Paleozoic cover rocks. Two airborne surveys were flown over the area including a 2274 line km GEOTEM® survey and a 330 line km AeroTEM survey. Probe staked 489 claim units to cover anomalies identified by the airborne geophysical surveys. Ground electromagnetic surveys were carried out on 28 km of cut lines. A two-phase diamond-drilling program totalling 3195 m in 19 holes tested several of the anomalies. Drilling intersected sulphide mineralization anomalous in copper and zinc (*Probe Mines Ltd., press releases*, April 7, 2005, September 20, 2005, November 1, 2005, December 10, 2005; D. Palmer, Probe Mines Ltd., personal communication, 2006).

Spider Resources Inc. and KWG Resources Inc. – McFauld's Lake Property

At McFauld's Lake, Spider Resources Inc. and joint venture partner KWG Resources Inc. completed a 259 line km helicopter airborne geophysical survey over the McFaulds #1 and #3 VMS occurrences. A second survey of 1200 line km covered the McFaulds West project. A new project area, referred to as the Gremlin project, located north of McFauld's Lake was covered by a 590 line km airborne survey. Additional ground geophysical surveys were completed on the McFauld's West project. Diamond drilling on the McFauld's VMS occurrences consisted of 11 holes totalling 4216.5 m.

One diamond-drill hole was completed on the MacFadyen kimberlite property in the vicinity of De Beers Canada Inc. Victor Diamond Project. The drill hole was abandoned at a depth of 246 m prior to the planned target depth. Several veinlets of kimberlite were encountered in the drill core high up in the section, these were attributed to the nearby MacFadyen #2 kimberlite. (N. Novak, Spider Resources Inc., written communication, 2006).

Spider Resources Inc. and KWG Resources Inc. – Wawa Property

Spider Resources Inc. and KWG Resources Inc. released results from their 2004 mini-bulk sampling program completed on their Menzies and Lalibert townships property. Two, 5 tonne mini-bulk samples were collected from 2 adjacent sites, LAL 221 and LAL 223. These sites were chosen because a 30.1 kg sample previously collected from location LAL 221 returned 1621 diamonds and a 19.8 kg sample from LAL 223 returned 117 diamonds. Bulk sample BK-8 yielded 14 diamonds with the largest weighing 0.06 carats. The stone is described as white,

translucent and an 85% preserved octahedral crystal. Bulk sample BK-9 yielded 10 diamonds, with the largest weighing 0.328 carats. The stone is described as being an off-white, transparent, 99% preserved octahedral surface fragment, twinned, with very significant cleavage (*Spider Resources Inc. and KWG Resources Inc., press releases,* January 21 and May 17, 2005). Table 15 provides the results of the two bulk samples.

Table 15. Results of the 2004 bulk sampling on the Wawa property, Spider Resources Inc. and KWG Resources Inc.

Mini-Bulk Sample Site No.	Channel Sample No.	Sample Weight (kg)	Number of Diamonds	Diamonds per kg	>1.0 mm	0.8 - 1.0 mm	0.5 - 0.8 mm	0.2 - 0.5 mm
BK-8	LAL-221	10	21	2.1	1	2	1	17
	LAL-234	30.1	1632	54.2	14	39	221	1358
	LAL-235	22.6	46	2	1	1	10	32
Total		62.7	1699	27.1	16	42	232	1407
BK-9	LAL-223	10	37	3.7	2	1	7	27
	LAL-232	19.8	117	5.9	9	11	44	53
	LAL-233	22.8	21	0.9	0	1	4	16
Total		52.6	175	3.3	11	13	55	96

† *Information derived from Spider Resources Inc. and KWG Resources Inc., press releases, May 17, 2005.*

Two samples were composed of xenoliths encapsulated within the surrounding matrix. These xenolithic samples weighed 49.9 kg and contained 0.59 carat of the measured stones and 1749 of the total population of 2020 diamonds recovered. The company indicated that the xenoliths contain most of the diamonds, and more importantly, most of the larger sized diamonds. This observation may help in the understanding of the complex relationship between the occurrence of the larger stones (>0.8 mm) and the geology of the diamond occurrences (*Spider Resources Inc. and KWG Resources Inc., press releases,* February 9 and April 25, 2005)

Strike Minerals Inc. – Edwards Property

Strike Minerals Inc. conducted a seven-hole (1000 m) diamond-drilling program on their Edwards Property in Jacobson Township northeast of Wawa. Four drill holes tested the Plowman #3 Zone and the Plowman #1 Zone. Two drill holes tested the New North I and II Zones. Significant assays from the Plowman #1 Zone include 0.421 ounces per ton gold over 1 foot in drill hole 2005-2 and 0.249 ounces per ton gold over 1 foot in drill hole 2005-3. The Plowman #1 Zone is characterized by sugary quartz veinlets with 5% pyrrhotite banding and blebs, and minor amounts of chalcopyrite, sphalerite and galena. The Plowman #3 Zone was intersected in drill hole 2005-4 and returned an assay of 0.087 ounces of gold per ton over 1 foot. The Plowman #3 Zone is a narrow, pyrite-bearing shear zone with quartz-carbonate veining and fine tourmaline banding (*Strike Minerals Inc., press release,* April 12, 2005).

Significant assays from the New North I Zone include 2.185 ounces per ton gold over 2 feet in drill hole 2005-5 and 25.17 g/t gold over 1 foot in drill hole 2005-7. The New North II Zone returned an assay of 0.509 ounces per ton gold over 1 foot from drill hole 2005-5, 0.015 ounces per ton gold over 1 foot in drill hole 2005-6 and 5.26 g/t gold over 1.2 feet in drill hole 2005-7. The New North zones reportedly contain visible gold (*Strike Minerals Inc., press releases,* December 12, 2005, and January 9, 2006).

In November, Strike announced that they have expanded the Edwards property. A letter of intent was signed with Vencan Gold Corporation to purchase their 43 claims that adjoin the Edwards Property. An additional 29 adjacent claims were acquired from a private individual at arms' length. The additional claims increase Strike's land holdings to 76 contiguous claims (*Strike Minerals Inc., press releases,* November 11 and 17, 2005).

Sydney Resource Corporation – West Timmins

Sydney Resource Corporation acquired a significant land position in West Timmins near Lake Shore Gold Corp.'s West Timmins Project in Bristol Township. Claim groups acquired include the Northshore property, located immediately northwest of the Timmins West prospect; the North Beach property, northeast of Lake Shore's

Timmins West Project; the Strand property, which is internal to the North Beach; the South Beach property, tied onto the southeast of the Timmins West project; and the Allerston property, to the north of the Northshore property. The company also acquired the Wakemac property in Denton Township.

In the southeastern corner of the Northshore Property diamond-drill hole NS05-01 intersected a sediment-volcanic contact at a vertical depth of 432 m. A 20 m wide zone of shearing, alteration, localized quartz veining/flooding and chalcopyrite-pyrite-pyrrhotite mineralization is centered on the contact zone.

On the Allerston property diamond-drill hole SBA05-09 intersected 96 m of strongly to intensely iron-carbonate altered, variably sheared and quartz-tourmaline veined mafic volcanic rocks (*Sydney Resource Corporation, press releases,* December 7, 2005, December 8, 2005, January 15, 2006).

Temex Resources Corp. – Whitney Township Property

Temex Resources Corp. optioned the Whitney Township property from the Porcupine Joint Venture. The property comprises 2160 acres and includes several past-producing mines including the Halnor Mine (below 1000 ft.) and Broulan Reef. After a period of data compilation and modelling, a diamond-drilling campaign of 16 holes totalling 2630 m focused on the C Zone and the Hugh Pam Conglomerate Zone. The C Zone was tested along a strike length of 425 m and to a vertical depth of 130 m. Gold is associated with quartz and quartz + carbonate veining hosted by sheared and altered mafic volcanic rocks. Sulphide mineralization includes pyrite, pyrrhotite and arsenopyrite. On the Hugh Pam Zone, drilling tested a strike length of 415 m to a depth of 115 m. Sericite alteration and fuchsite alteration of ultramafic clasts accompany gold and base metal mineralization, including sphalerite and chalcopyrite along with pyrite, pyrrhotite and arsenopyrite. The mineralized zone occurs at the contact between Timiskaming clastic and conglomerate sediments and mafic volcanic rocks in proximity to the Porcupine–Destor fault. Selected assay results from diamond drilling on the C Zone are presented in Table 16, and results from the Hugh Pam Zone are listed in Table 17.

Table 16. Selected assay results from the C Zone.

Hole	From (m)	To (m)	Interval (m)	Gold (g/t)
TW05-01	122.00	153.00	31.00	1.51
Including	132.50	134.00	1.50	6.28
TW05-02	137.70	154.00	16.30	1.72
Including	144.00	146.00	2.00	5.08
TW05-03	103.60	117.40	13.80	1.89
Including	109.90	110.40	0.50	12.11
TW05-04	122.00	135.50	13.50	3.64
Including	122.00	126.50	4.50	10.13
Including	124.00	125.00	1.00	37.41
TW05-05	153.50	159.50	6.00	2.68
Including	158.10	159.50	1.40	11.01
TW05-06	131.00	134.00	3.00	0.46
TW05-07	48.50	50.00	1.50	30.93
	87.50	94.00	6.50	5.14
	115.70	146.00	30.30	3.73
Including	128.00	139.00	11.00	5.79
TW05-08	no significant gold values			
TW05-09	no significant gold values			

(Temex Resources Corp., press release, January 4, 2006)

Table 17. Selected assay results from the Hugh Pam Zone.

Hole	From (m)	To (m)	Interval (m)	Gold (g/t)
TW05-10	61.00	68.00	7.00	0.77
Including	66.50	68.00	1.50	1.90
And	96.00	99.00	3.00	1.32
TW05-11	35.30	62.80	27.50	8.41
Including	36.00	48.00	12.00	17.17
TW05-12	78.90	84.50	5.60	0.76
Including	78.90	80.00	1.10	2.11

Hole	From (m)	To (m)	Interval (m)	Gold (g/t)
TW05-13	127.90	128.90	1.00	0.21
TW05-14	30.50	56.30	25.80	1.00
Including	30.50	32.00	1.50	3.53
Including	55.00	56.30	1.30	6.38
	96.50	102.50	6.00	1.20
Including	100.00	101.00	1.00	3.41
TW05-15	61.00	74.00	13.00	2.61
Including	66.50	68.10	1.60	20.51
	116.00	119.80	3.80	1.25
Including	118.80	119.80	1.00	3.98
TW05-16	84.50	87.50	3.00	2.37

(Temex Resources Corp., press release, January 11, 2006).

Trade Winds Ventures Ltd. – Detour Lake

Trade Winds Ventures Ltd. continued to explore 2 contiguous properties at Detour Lake, the Block A property and the Gowest/Detour West property. Trade Winds evaluated near surface gold mineralization along the M Zone and the North Walter Lake Zone. The company completed about 50 diamond-drill holes totalling more than 13 000 m, designed to intersect the gold-bearing zones between the depths of 100 and 350 m. Drilling intersected multiple parallel zones of gold mineralization both in the hanging wall and footwall of the M Zone. The company reported several high-grade, near-surface intersections of gold mineralization along the M Zone, including 20.88 g/t gold over 9.70 m in TWDDH-041 and 41.34 g/t gold over 5.0 m in TWDDH-063. The alteration zone that comprises the M Zone is up to 30 m in width with multiple gold-bearing zones (*Trade Winds Ventures Ltd., press releases,* March 29, 2005, September 23, 2005, November 25, 2005).

Trigon Exploration Canada Ltd. – Viking Property

The Viking Project was acquired by Trigon Exploration Canada Ltd. based on a 2004 reconnaissance sampling program that recovered abundant kimberlite indicator minerals (KIMs). Many of the recovered KIMs showed primary surface textures, suggesting a very short glacial transport distance. Indicator minerals recovered from the property included G10 garnets, eclogitic garnets, picroilmenites, chromites and chrome diopsides. In 2005, Trigon completed a 5200 line-km, high-resolution, airborne magnetic survey over the property and collected approximately 80 heavy mineral samples to verify the up-ice cut-off of the KIMs source area. A second field program, consisting of ground checking anomalies, prospecting and target-specific heavy mineral and MMI (mobile metal ion) sampling, was completed following additional staking of airborne geophysical targets (*Trigon Exploration Canada Ltd., press releases,* August 16 and October 26, 2005).

Vedron Gold Inc. – Buffalo Ankerite Property

The Buffalo Ankerite property is located in Deloro Township, Timmins. The property encompasses 35 claims and includes the historic Buffalo Ankerite Mine. The mine operated from 1926 to 1953 with additional production in 1978. It produced 957 292 ounces of gold from 4 993 929 tons milled for an average grade of 0.19 ounces per ton gold (Atkinson et al. 2005).

Vedron Gold Inc. completed a thirteen-hole (1237 m) surface diamond-drilling program on the property. The drill program tested north-trending gold zones adjacent to the east side of the historic Buffalo Ankerite Mine. These steeply dipping, gold-bearing zones trend southward for 1 km from the adjacent Paymaster #3 shaft area. Significant assays from the 2005 diamond-drilling program include 9.42 g/t gold over 4.16 m, including 13.1 g/t gold over 2.74 m in drill hole VBA05-4 and 5.83 g/t gold over 1.42 m in drill hole VBA05-2, which was abruptly terminated upon hitting an underground mine opening. Two gold zones were intersected in drill hole VBA05-7. The upper zone returned an assay of 2.93 g/t gold over 15.24 m and the lower zone returned an intersection of 6.78 g/t gold over 5.09 m (*Vedron Gold Inc., press release,* December 12, 2005).

The property geology consists of a folded sequence of altered ultramafic metavolcanic rocks, pillowed and massive mafic flows, quartz porphyry and mafic tuffs and fragmental flows. Gold mineralization is associated with quartz-

tourmaline-ankerite veins located at the contact of ultramafic and mafic metavolcanic rocks, and with quartz porphyry intrusive-hosted sulphide mineralization.

The property was last explored by Placer Dome (CLA) Limited under a three-year option agreement that expired in 2004. Eight diamond-drill holes (1363 m) outlined an open pittable resource of 100 000 ounces of gold to a depth of 400 feet at the south mine area. Historical estimates indicate the potential for an additional 450 000 ounces of gold below the open pit resource and 190 000 ounces of gold in the north mine area. All resource figures are non NI 43-101 compliant (Vedron Gold Inc., fact sheet, March 2005).

Vedron Gold Inc. – Davidson-Tisdale Mine Property

Vedron Gold Inc. completed a six-hole diamond-drilling program totaling 1500 m on the Davidson-Tisdale Mine that is under option from Laurion Gold Inc. This resulted in the discovery of a new gold-bearing quartz vein system located 200 m beneath the the previously discovered Main Zone. Selected results from the quartz vein system include 17.28 g/t gold over 2.5 m and 12.83 g/t gold over 7.5 m. The 2005 diamond-drilling program confirmed the continuity of the gold mineralization to a depth of 280 m. (*Vedron Gold Inc., press release,* November 8, 2005).

Vencan Gold Corporation – Cayenne and Chili Property

Vencan Gold Corporation completed a preliminary exploration program on their Cayenne and Chili property, located in Heenan, Marion and Genoa townships, in the Swayze greenstone belt. An extensive program of ground geophysical surveys, followed by geological mapping outlined an east-trending shear zone and sulphide-bearing quartz veins in iron formation that returned assays up to 16.87 g/t gold over 2 m from chip samples (*Vencan Gold Corporation, press release,* January 3, 2006).

A follow-up diamond-drilling program was concentrated on the Cayenne Central property. Six drill holes targeted IP anomalies. The drill holes intersected an extensive zone of sericite and carbonate alteration in mafic metavolcanic rocks and quartz feldspar porphyry dikes. The best intersection assayed 0.53 g/t gold over 1 m in drill hole CC88-05-04 (*Vencan Gold Corporation, press release,* November 9, 2005).

Four drill holes tested the Main Trench area where 2 diamond-drill holes completed by Falconbridge Limited in 1984 returned assays up to 7.61 g/t gold over 3 feet and 6.17 g/t gold over 7 feet. The elevated gold values were associated with massive to semi-massive sections of iron formation (Fumerton and Houle 1995). Significant assays from the recent drilling include 0.46 g/t gold and 14.37 g/t silver over 5.25 m in drill hole CC88-05-09 (*Vencan Gold Corporation, press release,* January 3, 2006).

Vencan signed a formal option and joint venture agreement with Falconbridge Limited on the Cayenne East property in Marion and Genoa townships. The Falconbridge option is host to the Jefferson deposit that contains an historic estimated resource of 30 100 tons grading 7.05 % zinc and 4.58 % lead. This figure was calculated for Central Sudbury Lead-Zinc Mines in 1948 and is non NI 43-101 compliant. Grab samples collected by Vencan returned assays up to 0.92% copper, 31.16% lead, 17.50% zinc and 37.7 g/t silver *(Vencan Gold Corporation, press release,* January 3, 2006).

Wallbridge Mining Company Limited and Mountain Lake Resources Inc.– Hong Kong Project

Following a 2004 exploration program of airborne geophysical surveys, sampling and geological mapping, Wallbridge Mining Company Limited and Mountain Lake Resources Inc. conducted diamond drilling on the Beith Option, part of the Hong Kong Project. A grab sample collected from the property by Wallbridge and Mountain Lake in 2003 returned an assay of 0.012 ppm gold, 1.8 ppm silver, 0.0330 ppm platinum, 0.035 ppm palladium, 0.3887% copper, 0.7735% nickel and 0.0209% Co (Oosterman 2004). Highlights of the initial drilling include 2.02% nickel, 0.91% copper over 2.25 m in hole WHK-003 and 1.16% nickel, 0.49% copper over 1.21 m in hole WHK-*001 (Wallbridge Mining Company Limited and Mountain Lake Resources Inc., press release,* March 7, 2005).

Mineralization is hosted in massive and locally slightly sheared amphibolite. The mineralization consists of chalcopyrite, pyrrhotite and pyrite. Pentlandite also has been reported on the property. The Beith Option was last explored in 1972 by the Hudson Bay Exploration and Development Company Ltd. who completed 6 diamond-drill holes (1658 feet). The best assay from this diamond drilling was 0.39% copper, 0.87% nickel in DDH#1 and 0.80% copper, 0.54% nickel in DDH#3. The property has an estimated historical resource (non-NI-43-101 compliant) of 30 000 tons grading 0.6% nickel, 0.4% copper, 0.015% cobalt, 0.015 ounces per ton platinum and 0.01 ounces per ton gold to a depth of 90 feet (Fumerton and Houle 1995; Oosterman 2004).

Young-Shannon Gold Mines Ltd. – C Prime Gold Deposit

Young-Shannon Gold Mines Ltd. completed a five-hole (1295 m) diamond-drilling program on the C Prime Gold deposit located in Chester Township. Four of the holes were drilled along strike, to the east of the Phase I drill program that was completed in 2004. The fifth hole was drilled at the west end of the C Zone, approximately 122 m west of the Young-Shannon shaft. Significant assays from the drilling program included 16.65 g/t gold over 1.05 m and 3.89 g/t gold over 3.3 m, including 34.18 g/t gold over 0.3 m in drill hole YS-05-01, and 2.6 g/t gold over 3.8 m including 6.86 g/t gold over 0.8 m in drill hole YS-05-04. Visible gold is commonly observed in the core (*Young-Shannon Gold Mines Ltd., press release*, May 12, 2005). The drilling program confirmed continuity of gold mineralization eastward along strike and has extended the mineralization vertically down-dip to approximately 225 m. The Chester Township property has an indicated resource of 222 000 tons grading 0.354 ounce per ton gold and an inferred resource of 725 000 tons grading 0.160 ounce per ton gold (*Young-Shannon Gold Mines Ltd., press release*, October 11, 2005).

Table 18. Exploration activity in the Timmins District in 2005 (*see* Figures 2a-f and 3).

Abbreviations

AEM	Airborne electromagnetic survey	MAG	Ground magnetic survey
AMAG	Airborne magnetic survey	Met	Metallurgical testing
Anlys	Analysis	Lc	Linecutting
Bulk	Bulk sampling	Photo	Aerial photography
Comp	Data compilation	Rcalc	Resource calculations
DD	Diamond drilling	Pet	Petrographic analyses
DGP	Down-hole geophysics	Pr	Prospecting
EM	Electromagnetic survey	Samp	Sampling (other than bulk)
GC	Geochemical survey	Str	Stripping
GL	Geological survey	Tr	Trenching
IP	Induced polarization survey	UG	Underground development

No	Company/Individual (Occurrence Name or Property)	Township/Area (Commodity)	Exploration Activity
1	1231674 Ontario Ltd (James Bay Lowlands Project)	BMA 527 821, BMA 527 834, BMA 527 861, BMA 527 862, BMA 528 832, BMA 528 834, BMA 528 861 (diamonds)	AMAG
2	2004428 Ontario Inc. & Liberty Mineral Exploration Inc. (Eldorado Property)	Eldorado (Ni, Cu, PGE)	DD–1–125 m
3	6070205 Canada Inc. (Thorburn property)	Thorburn (VMS)	DD–2–548 m
4	6070205 Canada Inc.	Clergue (Au)	DD–2–92 m
5	Admiral Bay Resources Inc. (Moose River Basin property)	Kipling, Sanborn, Gentles, Gardiner tps., west of Gentles area (coal bed methane)	DD– 9
6	Argent Resources Inc. (Timmins Offsets property)	Tully (Au)	DD–8–2067 m, Assays

No	Company/Individual (Occurrence Name or Property)	Township/Area (Commodity)	Exploration Activity
7	Aube, A. and Hussey, J.C. (Heenan property)	Heenan	EM, MAG
8	Avalon Resources Ltd. (Shawmere Anorthosite)	Warren (anorthosite)	Anlys
9	Baltic Resources Inc. (Coral Rapids property)	Valentine, Pitt, Kilmer, Hamlet,Wacousta (diamonds)	AEM, AMAG
10	Baltic Resources Inc. (Coral Rapids property)	Wacousta (diamonds)	GL, Str
11	Band-Ore Resources Ltd. (Thorne property)	Thorneloe (Au)	DD-20, Assays
12	Big Red Diamond Corporation (Valentine Township property)	Valentine (diamond)	GC, Anlys
13	Canadian Arrow Mines Ltd. (Hart property)	Eldorado (Ni)	DD
14	Canadian Arrow Mines Ltd. (Mann Trend property)	Mann (Ni)	DD
15	Canadian Golden Dragon Resources Ltd. and Maple Minerals Corp. (West Porcupine property)	Reeves (Au)	DD-1-248 m, Assays
16	Canadian Royalties Inc. and Becker Gold Mines Ltd. (Lockout Prospect)	Watson, Poulett (Ni, Cu, PGE)	EM, DD-6-1025 m
17	Claim Lake Resources Inc.	Zavitz (Au, Cu, Zn, Ni)	DD Relog, Str
18	Consolidated Big Valley Resources Inc. (LDR property)	Byers, Moberly, Loveland, Thorburn (Au, Cu, Ni, PGE)	AEM, AMAG, Assay, DD-5-1051 m
19	Croxall, J.E. (Goose Lake property)	Shaw (Au, Ni)	Str, Pr, Samp, Assay
20	De Beers Canada Inc. (Victor Project)	BMA 527 834 (diamonds)	Environmental Assessment
21	Dentonia Resources Ltd. (Atkinson Gold Project)	Lower Detour Lake (Au, VMS)	MAG, EM, DD-6-594 m, IP, Assays
22	Diadem Resources Ltd. (Attawapiskat property)	BMA 525 832, 524 832, 523 832, 525 831, 524 831, 523 831, 522 831, 525 833, 524 833 (diamonds)	AMAG
23	Eastmain Resources Inc. and Falconbridge Limited (MEGATEM® Project)	Atkinson Lake, Hopper Lake, Lower Detour Lake, west of Sunday Lake (Au, VMS)	DD
24	Eloro Resources Ltd.	Denton (Au)	Pr, Samp
25	Eloro Resources Ltd. (Hurdman property)	Hurdman (Ag, Cu, Zn)	DD-4, Assays
26	Eloro Resources Ltd. (Texmont North property)	McArthur, Bartlett (Ni, Cu)	Lc, MAG
27	Eloro Resources Ltd. (Hydro Bay property)	Price	IP, MAG
28	Explorers Alliance Corporation (Allerston property)	Bristol (Au)	Assays, DD-3-579 m
29	Explorers Alliance Corporation (Halfmoon Lake property)	Robb (Cu, Zn)	DD-1-392 m
30	Falconbridge Limited (By-45/55 Grids)	Byers (BM)	EM, MAG
31	Falconbridge Limited (BY-36 Grid)	Byers (BM)	EM, MAG
32	Falconbridge Limited (CARS-41/42 Grids)	Carscallen, Whitesides (BM)	MAG, EM
33	Falconbridge Limited (MOB-26 property)	Moberly (BM)	EM, MAG

No	Company/Individual (Occurrence Name or Property)	Township/Area (Commodity)	Exploration Activity
34	Falconbridge Limited (Montcalm Area)	Montcalm, Belford, Melrose, Nova, Strachan, Watson (Ni, Cu, Co)	AMAG, AEM
35	Falconbridge Limited (RE-31 property)	Reid, Thorburn (BM)	EM, MAG
36	Falconbridge Limited (R-61 property)	Robb, Cote (Cu, Zn)	EM, MAG
37	Falconbridge Limited (Sothman 31 Grid)	Sothman (Ni)	MAG
38	Falconbridge Limited (Th-56 property)	Thorburn (BM)	MAG, EM
39	Falconbridge Limited (WHI-45 property)	Whitesides (BM)	MAG, EM
40	First Nickel Inc. (Dundonald and Dundeal Properties)	Dundonald (Ni, PGM)	DD–71–>8000 m, Assays, MAG, EM
41	Gervais, L. N. (Byers-Loveland property)	Byers, Loveland	Lc, EM
42	Gervais, L. N.	Murphy	Pr, Samp, Assays
43	Golden Chalice Resources Inc. (Langmuir Prospect)	Langmuir (Ni)	DD–4
44	Gowest Amalgamated Resources Ltd. (Frankfield Deposit)	Tully (Au)	DD–7–2804 m, Assays
45	Grant Forest Products Corp. (Ogden Township Grid)	Ogden (Au, REE, diamond)	MAG, GC, GI, Samp
46	Great Southern Enterprises Corp. (Rundle-Swayze Gold Project)	Newton, Dale, Horwood, Silk (Au)	Reale
47	Inspiration Mining Corp. (Langmuir property)	Langmuir (Ni, Cu, PGE)	EM, MAG, Lc, DD–20–>3000 m, Assays
48	JML Resources Ltd. (Horwood Gold property)	Horwood (Au)	Assays, DD–11–1186 m
49	Keast, T.M. and Healy, D. (Monpre Project)	Sothman (Au)	DD–1–152 m
50	Lake Shore Gold Corp. (Thunder Creek property)	Bristol (Au)	DD–6–2359 m, Assay
51	Lake Shore Gold Corp. (Timmins West Gold Project)	Bristol (Au)	Pre-feasibility studies, Met, DD–59–47 749 m, Assays
52	Lake Shore Gold Corp. (Vogel property)	Hoyle (Au)	Comp, DD–18–4476 m, Assays
53	Lake Shore Gold Corp. (De Santis Mine)	Ogden (Au)	Comp, DD–4–2176 m
54	Lake Shore Gold Corp. (Ogden Project)	Ogden (Au)	DD–1–329 m, Assays
55	Lake Shore Gold Corp. (Croxall-Kangas Project)	Price (Au)	DD–2–610 m, Samp, Assay, Photo
56	Lalonde, D.J. & Robitaille, R.	Byers (BM)	Lc, MAG, EM
57	Laurion Gold Inc. (Enid-Massey Project)	Enid, Massey, Fortune Coté (Au)	Pr, GC
58	Laurion Gold Inc.	Shaw (Au, Ni, Pd, Co)	GC
59	Laurion Gold Inc. and Comaplex Minerals Corp. (German Gold property)	German (Au)	DD–3–2052 m, Assays
60	Laurion Gold Inc. and Vedron Gold Inc. (Davidson-Tisdale property)	Tisdale (Au)	DD–6–1500 m, Assays
61	Liberty Mineral Exploration Inc. (Bristol Township property)	Bristol (Au)	MAG, IP, Lc

No	Company/Individual (Occurrence Name or Property)	Township/Area (Commodity)	Exploration Activity
62	Liberty Mines Inc (Redstone Mine)	Eldorado (Ni, Cu)	De-watering
63	Liberty Mineral Exploration Inc. (McWatters property)	Langmuir (Ni)	DD–6–1100 m, Rcalc, IP, MAG
64	Liberty Mineral Exploration Inc. (Bobs Lake property)	Whitney (Au)	Tr
65	McKinnon, D. (Otter Rapids property)	Pitt, Valentine (BM, Au)	AEM, AMAG
66	Metal Mines Inc. (Langmuir property)	Langmuir (Ni)	DD–2–276 m
67	Metalex Ventures Ltd. (Dumont Nickel and Attawpiskat Joint Ventures)	BMA 526 834, BMA 527 834 (diamond)	GC, Anlys
68	Metalex Ventures Ltd. &Arctic Star Diamond Corp. (Kyle Project)	Mississa River Area, South of Mississa River, West of Mississa River (diamonds)	Anlys, AM, DD–7–306 m
69	Meunier, D. and Pegg, C.	Dundonald (Au, BM)	GC
70	Meunier, D. and Pegg, C. (Hoyle North property)	Matheson (Au, BM)	GC
71	Moneta Porcupine Mines Inc (North Tisdale)	Tisdale (Aggregate, Au)	Anlys, Pet, DD–1–218 m
72	Morgan, C.R. and Barnes R. (Carscallen property)	Carscallen (Au)	IP
73	Mustang Minerals Corp. (Adams Nickel property)	Adams (Ni)	DD
74	Noranda Inc. (Halliday 26 Grid)	Halliday	MAG, EM
75	Noront Resources Ltd. and Hawk Precious Minerals Ltd. (Double Eagle Project)	BMA 526 862, BMA 527 861, BMA 527 862, (BM)	AEM, MAG, EM
76	Northern Shield Resources Inc. (Faint Hope property)	Agassiz, Ireland (kimberlite)	DD
77	Northern Shield Resources Inc. & Impala Platinum Holdings Ltd. (Highbank Lake property)	BMA 524 861, BMA 524 862 (Ni, PGE)	AEM, GC, Pr, Samp
78	Pacific North West Capital Corp. (Montcalm Grid 2)	Belford (Ni, Cu, PGE)	DD–1–210 m
79	Pacific North West Capital Corp. (Timmins West Project)	Montcalm, Belford, Nova, Watson (Ni, Cu, PGE)	Comp, EM, MAG, GL, Pr, GC, DD– 15–3400 m, DGP
80	Pelangio Mines Inc. (Poirier Gold Prospect)	Bristol (Au)	Assays, DD–3–700 m
81	Pelangio Mines Inc. (Detour Lake Project, Mine Option)	Sunday Lake , West of Sunday Lake (Au)	DD– 45–11 408 m. , RCalc, Assays
82	Pelangio Mines Inc. and High River Gold Mines. Inc. (DNA property)	West of Sunday Lake (Au)	MAG, IP
83	Pele Mountain Resources Inc. (Attawapiskat property, East River Block)	BMA 527 833 (diamond)	Anlys
84	Pele Mountain Resources Inc. (Timmins Nickel Project)	Geikie (Ni)	AEM, EM, DD–2
85	PMI Ventures Corporation (Sangold property)	Keith (Au)	Assays, DD–24
86	Porcupine Joint Venture	Matheson (Au)	DD–1–200 m, Assay
87	Porcupine Joint Venture (Gervais 2 Project)	Ogden (Au)	DD–1–269 m, Assays
88	Porcupine Joint Venture (144 property)	Thorneloe (Au)	Lc, MAG, IP

No	Company/Individual (Occurrence Name or Property)	Township/Area (Commodity)	Exploration Activity
89	Porcupine Joint Venture (Comaplex Project)	Thorneloe (Au)	GC, Assays, DD–3–357 m
90	Porcupine Joint Venture	Tully	MAG, IP
91	Probe Mines Limited (Bristol Gold Project)	Bristol (Au)	DD–6–770 m, Assays
92	Probe Mines Limited (Tamarack property)	BMA 527 854, BMA 527 861, BMA 528 854, BMA 528 861 (VMS)	DD–3–402 m, AEM, EM
93	Probe Mines Limited (Victory Project)	BMA 525 854, BMA 526 854, BMA 527 853, BMA 527 854 (VMS)	AMAG, AEM, EM, DD–19–3195 m, Assays
94	Prospectors Alliance Corporation (Allerston property)	Bristol (Au)	DD
95	Raine, B.N. (Young Shaft Claim)	Cody (Au)	GL, Samp, Assays
96	Raine, B.N. (Murphy Township property)	Murphy (Au)	GL, Pr, Assays
97	Richmont Mines Inc. (Cripple Creek property)	Denton (Au)	DD–3–1912 m
98	Ross, F. J., Ross, G., Windsor, G. F. and Ross J. F. (Penhorwood property)	Penhorwood (Au, Zn, talc)	Pr, Samp, Tr
99	Sea Green Capital Corp. (Godfrey Township property)	Godfrey (VMS)	EM, DD–1–452 m
100	Spider Resources Inc. and KWG Resources Inc. (McFaulds Lake Project)	BMA 527 861, BMA 528 861 (VMS)	AEM, EM, MAG, DGP, Gravity, DD–11–4216 m, Assays
101	Spider Resources Inc. and KWG Resources Inc. (Gremlin Project)	BMA 527 861, BMA 528 861 (VMS)	AEM
102	Spider Resources Inc. and KWG Resources Inc. (MacFadyen Project)	BMA 528 834, BMA 527 834 (diamonds)	DD–1–246 m
103	St Andrew Goldfields Ltd. (Caron property)	Stock (Au)	DD–1–55 m
104	St Andrew Goldfields Ltd. (Clavos property)	Clergue (Au)	Bulk, DD–40 000 m, UG
105	St Andrew Goldfields Ltd. (Stock property)	Stock (Au)	DD–3200 m, Samp, UG
106	Starfire Minerals Inc.	Langmuir, Eldorado, Carman (Ni)	Comp
107	Sydney Resource Corporation (Allerston property)	Bristol (Au)	DD–1–87 m
108	Sydney Resource Corporation (Northshore property)	Bristol (Au)	Lc, MAG, EM, DD–4000 m
109	Temex Resources Corp. (Timmins Gold Project)	Whitney (Au)	Comp, DD–16–2630 m
110	Tom Exploration Inc. (Bristol Gold Project)	Bristol (Au)	MAG, EM, GC, DD–5000 m
111	Trade Winds Ventures Inc. (Detour West/Gowest Claims)	West of Sunday Lake, Hopper Lake (Au)	Assays, DD
112	Trade Winds Ventures Inc. (Aurora Project)	Lower Detour Lake, Hopper Lake (Au)	Assays, DD–8
113	Trade Winds Ventures Inc. and Pelangio Mines Inc. (Detour Lake Block A)	Sunday Lake, West of Sunday Lake (Au)	Assays, DD–50– >16 000 m
114	Tres-Or Resources Ltd. and SNL Enterprises Ltd. (Mann property)	Mann (NI, PGE)	Anlys, Pet, Samp, GC
115	Trigon Exploration Canada Ltd. (Viking Project)	BMA 515 861, BMA 521 862, East of Treloar Lake, Gittins Lake, Little Drowning River, Ogoki Trading Post, Ruby Creek (diamonds)	AMAG, GC, Pr

No	Company/Individual (Occurrence Name or Property)	Township/Area (Commodity)	Exploration Activity
116	Trigon Exploration Canada Ltd. and Pele Mountain Resources (Alliance Project)	(diamonds)	AMAG, MAG, Pr, GC
117	Union Gold Inc. (Halcrow Creek property)	Halcrow	Assays, MAG, Pr, Samp
118	ValGold Resources Ltd. (Whitney property)	Whitney	IP
119	Vedron Gold Inc. (Buffalo Ankerite property)	Deloro (Au)	DD–13–1237 m
120	Vencan Gold Corporation (Cayenne and Chili Gold property)	Heenan, Marion (Au)	Assays, DD–10–1120 m, MAG, EM, IP, GL, Samp
121	Vencan Gold Corporation (Cayenne East property)	Genca, Marion (BM)	Assays, Samp, Pr
122	Vuksanovich, E., Cook, R. and Lemire R. (Sothman Tp. Claims)	Sothman	GL, Lc, Pr
123	Wallbridge Mining Company Limited and Mountain Lake Resources (Hong Kong Project)	Edith, Hong Kong (Ni, Cu, PGE)	DD–1500 m, MAG
124	Western Kidd Resources Inc. (Loveland-Robb Project)	Loveland, Robb (VMS)	MAG, IP
125	Young-Shannon Gold Mines Ltd. (C Prime property)	Chester (Au)	DGP, DD–5–1295 m

Table 19. Exploration activity in the Wawa area in 2005 (*see* Figure 2g).

Abbreviations

AEM	Airborne electromagnetic survey	HM	Heavy mineral sampling
AMAG	Airborne magnetic survey	IP	Induced polarization survey
Anlys	Diamond analysis	Pet	Petrography
Bulk	Bulk sampling	Pr	Prospecting
DD	Diamond drilling	Rcalc	Resource calculation
GC	Geochemical survey	Samp	Sampling (other than bulk)
GL	Geological survey	Str	Stripping
EM	Ground electromagnetic survey	Tr	Trenching
GM	Ground magnetometer survey	UG	Underground development

No	Company/Individual (Occurrence Name) or Property	Township/Area (Commodity)	Exploration Activity
1	Alto Ventures Ltd. (Dog Lake property)	Bruyere Tp.	Pr, Samp
2	Band-Ore Resources Ltd. (Corbiere property)	Corbiere Tp.	AM, Pr, Samp
3	Band-Ore Resources Ltd. (Rock Star property)	Riggs Tp.	DD–10
4	Cline Mining Corporation (Cline Mine property)	Jacobson Tp.	DD–2–1000 m
5	Dianor Resources Inc. (Mousseau-Leadbetter property)	Esquega Tp. (diamond)	GL, MAG

No	Company/Individual (Occurrence Name) or Property	Township/Area (Commodity)	Exploration Activity
6	Dianor Resources Inc. (Leadbetter property)	Chabanel Tp. (diamond)	Anlys, AMAG, Bulk, DD–60–10,440 m, GC, GL, MAG, Pet
7	Dianor Resources Inc. (North Project)	Dahl Tp. (diamond)	AMAG, GL, Anlys, Samp
8	Dianor Resources Inc. (Wawa Project)	McMurray and Lastheels tp. (diamond)	AMAG
9	Funk, H.N. (Funk #1 property)	Jacobson Tp. (Au)	Assays, Str, Tr, Samp
10	Golden Chalice Resources Inc. (Chapleau property)	Bader, Bruyere, Collishaw, Copenace, Dolson, Echum, Marsh, Lang (diamond)	HM, Pr, Samp
11	Golden Chalice Resources Inc. (Ellen Creek property)	Mishibishu Lake area (Au)	Assays, Pr, Samp
12	Golden Goose Resources Inc. (Magino property)	Finan Tp. (Au)	Assays, Pr, Samp
13	Gowest Amalgamated Resources Ltd. and Newstrike Resources Ltd. (Wawa Gold property)	Keating Additional (Au)	AEM, Assays, DD–13, Pr
14	Goldwright Explorations Inc. (Renabie property)	BrackinTp. (Au)	IP, MAG
15	McKinnon, D. (Hawkins Gold property)	Hawkins Tp. (Au)	GL, Str, Tr
16	Metalex Ventures Limited (Mori Diamond property)	Chabanel, Bailloquet tp. (diamonds)	Anlys, GC, HM, Samp
17	Mori Diamonds Inc. (Mori Diamond property)	Chabanel Tp. (diamonds)	Anlys, Samp
18	Moses, J. & Carson, J. (MGiM property)	Abbie Lake area (Au)	Assay, Pr, Samp
19	Murgor Resources Inc. (Mishibishu Block)	Mishibishu Lake area (Au)	AEM, AM
20	Patricia Mining Corp. (Goudreau Zone property)	Finan Tp. (Au)	DD–9–3100 m
21	Pele Mountain Resources Inc. (Festival property)	Lalibert, Menzies, Musquash tp. (diamond)	Anlys, Bulk, DD–4–-485 m, Samp
22	Pele Mountain Resources Inc. (Springbank and Talisker Zones - Highland Gold property)	Abotossaway Tp. (Au)	Assays, DD–32–-800 m, Pr, Samp
23	Pele Mountain Resources Inc. (Oban Zone - Highland Gold property)	Abotossaway Tp. (Au)	Assays, Pr, Str, Samp,
24	Platinum Group Metals Ltd. (Lakemount property)	Esquega Tp. (Cu, NI, PGE)	Realc
25	Richmont Mines Inc. and Patricia Mining Corp. (Island Gold Project)	Finan Tp. (Au)	Assays, DD– 80–7903 m (underground), UG

No	Company/Individual (Occurrence Name) or Property	Township/Area (Commodity)	Exploration Activity
26	Stone, G., Hume, G., Laidlaw, J. and Mihelcic, J. (Lancely Lake Grid)	Stover and West tp. (diamond)	MAG, EM
27	Spider Resources Inc. and KWG Resources Inc. (Wawa Project)	Lalibert and Menzies tp. (diamond)	Anlys
28	Strike Minerals Inc. (Edwards property)	Jacobson Tp. (Au)	Assays, DD–7–1000 m
29	Terex Resources Inc (Abbie Lake Claims)	Abbie Lake area (Au)	GC
30	Terex Resources Inc (Mishibishu property)	Mishibishu Lake area (Au)	AM, AEM
31	Tremblay, M.A. (Nudulama East property)	Leeson Tp. (Au)	Assays, Samp
32	Windarra Minerals Ltd. (Pukaskwa property)	Camp Lake and David Lakes areas (Au)	Assay, Pr, Samp

RESIDENT GEOLOGIST PROGRAM STAFF AND ACTIVITIES

The Timmins Resident Geologist Office was staffed by B.T. Atkinson, Regional Resident Geologist, G.Wm. Seim, and A.C. Wilson District Geologists. In February, V.J. Bulman resigned his position as District Support Geologist and was replaced by H. Woo in October. S. Beauchamp was hired on contract to the position from April through July. D. Cholette was the Acting District Support Geologist for July and August.

K. Gregoire and R. Price provided summer field and office support under the Summer Experience Program 2005.

The Timmins office serves as the regional office for the Northeast Ontario Regional Resident Geologist Program. J.C. Ireland is the Regional Manager responsible for the Timmins and Kirkland Lake regional offices and the Sudbury and Sault Ste. Marie district offices. F. Boucher is the Regional Administrative Assistant and D.M. Draper is the Regional Cartographer and GIS Specialist.

The Timmins office summary statistics are provided in Table 20.

Table 20. Summary of staff activities, Timmins Regional Resident Geologist Office, 2005.

Activity	
Assessment files received (including donations)	179
Client visits - Office	1228
Client visits - Drill Core Library	104
Geological tours given	10
Geoscience library accessions	119
Property visits by staff	76
Telephone inquiries	1412

PROPERTY EXAMINATIONS

A number of property visits were made during the course of the year by staff of the Timmins Regional Resident Geologist office. Several of these are described below. Property visits provide geological insight into an area and help in identifying key indicators that could be deemed favourable for the discovery of new mineral deposits. Recommendations for exploration derived from property visits are presented in a separate section of this report.

Smylia Lake – Sothman Township

Access Located in the north part of Sothman Township, the Smylia Lake occurrence is accessed by a 2 km trail leading westward from Pine Street South to Smylia Lake.

A large stripped and trenched area (Figure 6) exposes felsic pyroclastic breccias with attendant pyrite mineralization in contact with spinifex-textured, iron carbonate and talcose-altered peridotitic komatiite. A bulk sample was taken from the property and processed by Pamour Porcupine Mines Limited in 1980. A total of 1961.9 dry tons were extracted with an average grade of 0.0785 ounce per ton gold.

Spinifex-textured komatiites abutting chlorite-altered felsic pyroclastic rocks and an intervening sulphide zone occur proximal to a large altered feldspar porphyry intrusion. Outcrop trenches reveal the apparent simultaneous eruption of komatiitic and felsic lavas producing a bimodal volcanic suite that is characteristic of many Archean komatiite-hosted nickel deposits. Although no nickel mineralization is reported from this location, it does occur in komatiites that are on strike with the Smylia Lake property. Within the komatiites, a thin band of graphitic argillite and felsic tuff with graded bedding indicate a northward facing sequence. A calcitic zone associated with the sediments, but disrupted by intense shearing, is interpreted as possible marble sediment. Shallow-dipping, east-facing komatiite flow breccia with clasts of spinifex komatiite occur south of the argillite horizon. An 020° trending shear zone affects lithologies in the central trench area. Fuchsite and talcose komatiite breccia occur locally in the shear zone.

Band-Ore Resources Ltd. – Thorne Property, Thorneloe Township

The Thorne property is located 20 km west of Timmins and is accessed from Highway 144, 10 km south of the juction with Highway 101. The property is held by Band-Ore Resources Ltd. and has been the subject of extensive diamond drilling over the past 10 years. A number of gold-bearing mineralized zones have been identified and drilled on the property, culminating in an inferred mineral resource estimate of 4 million tonnes grading 3 g/t containing about 400 000 ounces of gold. The distribution of gold-bearing zones is indicated on Figure 7. Figure 8 is a photograph of a section of altered, gold-bearing drill core from the 14 Zone. During 2005, drilling targeted a new zone in the vicinity of the Tatachikapika River. Due to thick overburden cover, the gold-bearing zones do not outcrop. Outcrop exposures along the Tatachiapika River consist of highly contorted sediments and strongly altered porphyry. An old trench near the river is evidence that the area had been previously prospected.

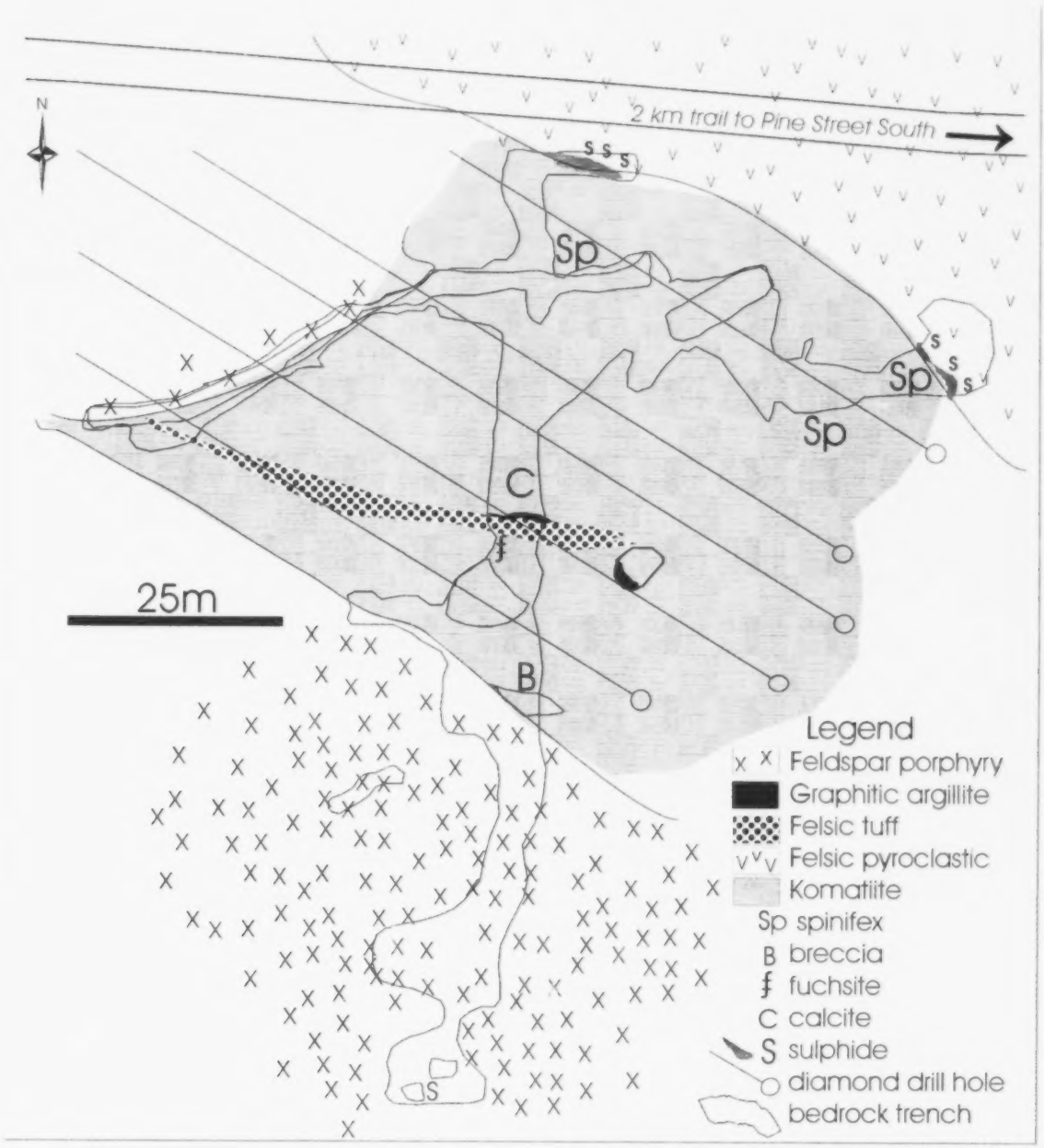

Figure 6. Bedrock geology of stripped and trenched exposures at the Smylia Lake occurrence, Sothman Township.

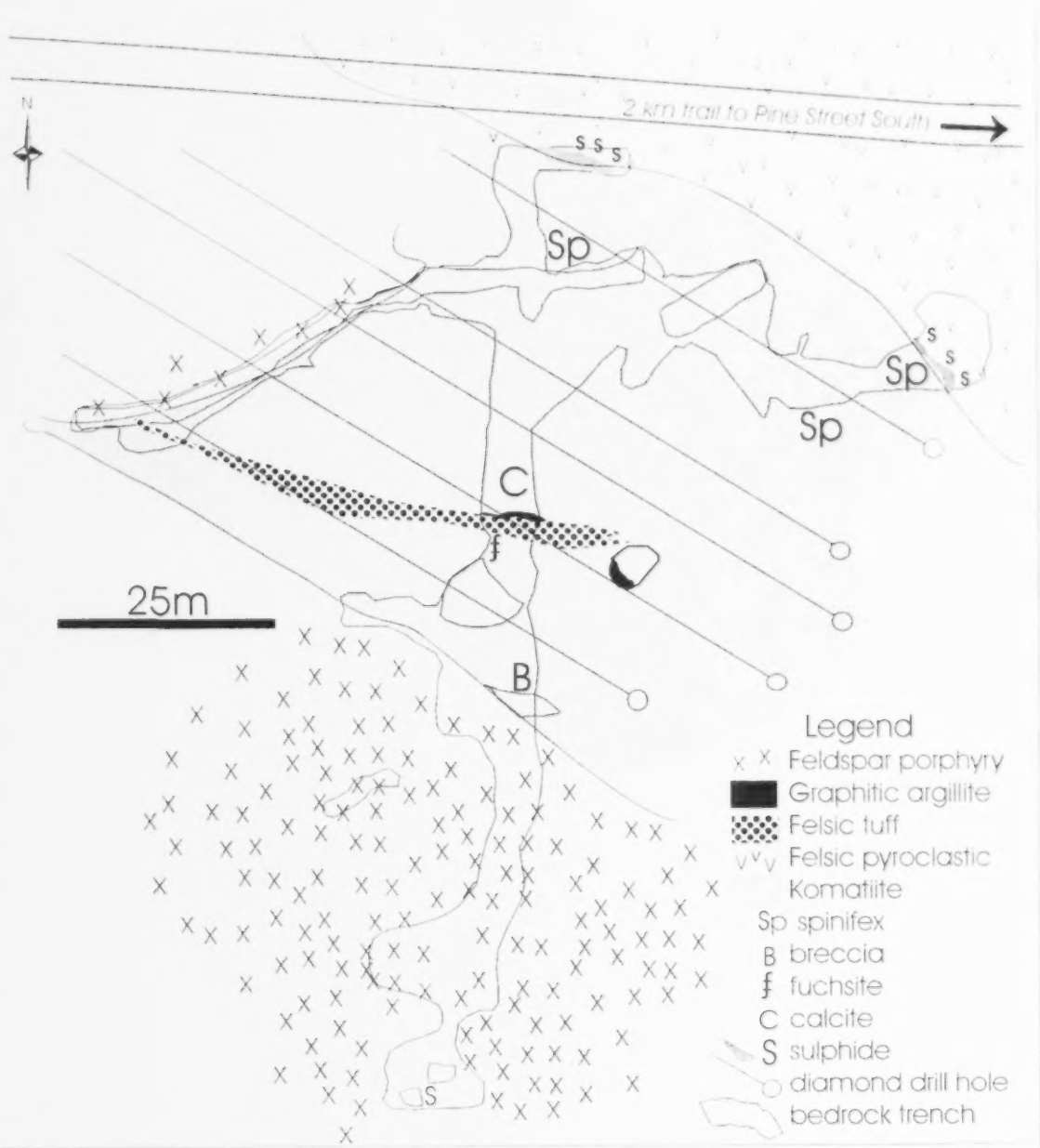

Figure 6. Bedrock geology of stripped and trenched exposures at the Smylia Lake occurrence, Sothman Township.

On the south part of the claim group, small outcrops of deformed, clast supported polymictic conglomerate are exposed (Figure 9). Clasts are widely variable in composition, set in a green chloritic matrix. Similar rocks located 3 km to the east at Wawaitin Falls have been dated by U/Pb method at <2684 Ma and form part of the Timiskaming assemblage (Ayer et al. 2005).

At the Dome Mine and Pamour Mine, Timiskaming assemblage rocks lie on the north side of the Porcupine–Destor fault. If the same relationship holds true on the west side of Timmins, then the location of the Porcupine–Destor fault lies to the south of the main zones of gold mineralization on the Thorne property. The intense deformation recorded in the conglomeratic rocks on the south part of the Thorne property may be the result of high strain directly associated with the development of the Porcupine–Destor fault.

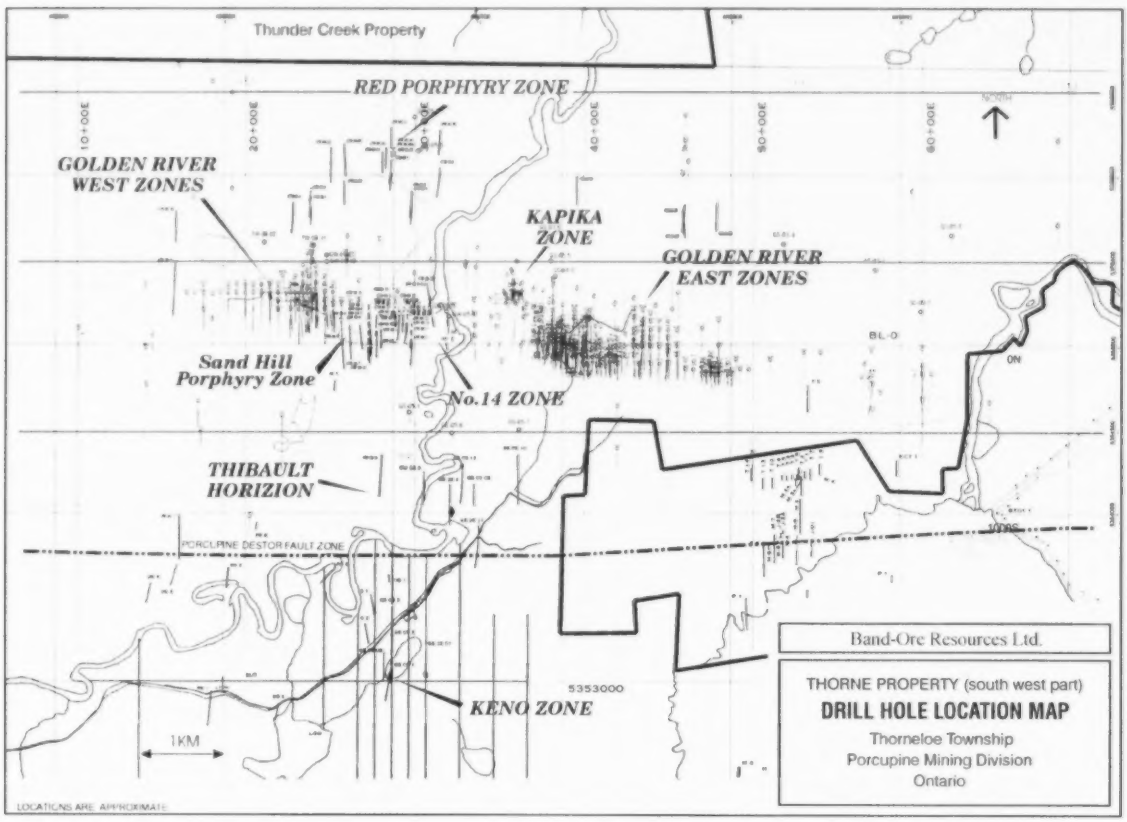

Figure 7. Plan view of gold-bearing mineralized zones identified by diamond drilling on the Thorne property, Band-Ore Resources Ltd.

Figure 8. Diamond drill core from the 14 Zone, Thorne property showing pronounced foliation and alteration in metasediments in proximity to the Porcupine–Destor fault.

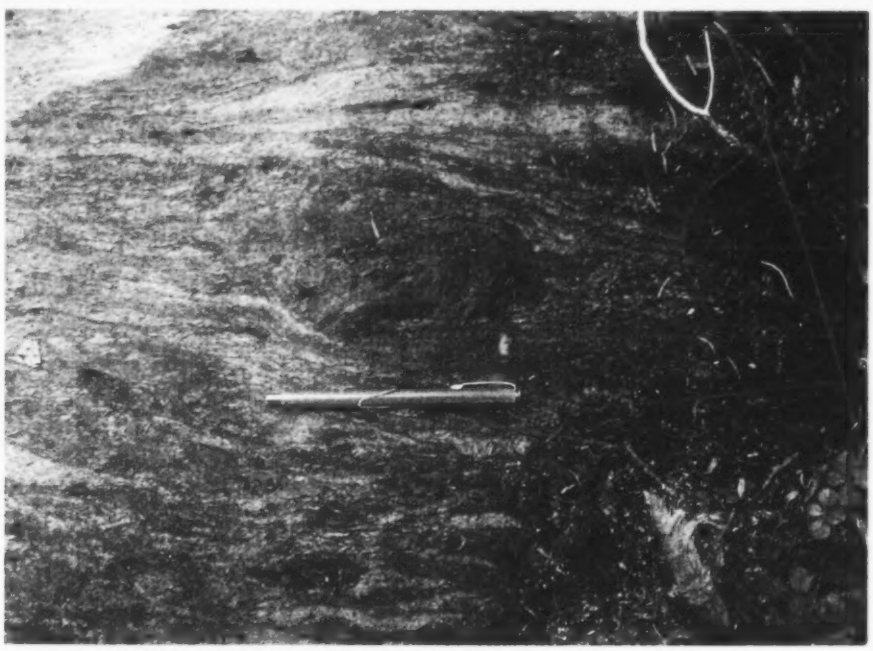

Figure 9. Deformed polymictic clast-supported conglomerate with mafic matrix. The large central clast above the pen magnet is magnetic iron formation. Pebbles are stretched with aspect ratios up to 15:1. Pen magnet is 12 cm long.

RECOMMENDATIONS FOR EXPLORATION

Base Metals

Recent detailed mapping, coupled with geochronological analyses on felsic rocks around the Kamiskotia area (Hathway et al. 2004) indicate that the rocks that were previously correlated with the Tisdale assemblage in Timmins are part of the younger Blake River assemblage. In the Rouyn-Noranda area of Quebec, Blake River assemblage is host to major volcanogenic massive sulphide mineralization at the Horne Mine and over 20 other base metal mines that produced over 200 million tonnes of copper and zinc ore. The correlation of sulphide-bearing felsic volcanic rocks north of Kamiskotia with those of the Noranda camp suggest these rocks should be reconsidered as potential hosts for Noranda-style volcanogenic massive sulphide mineralization.

Diamonds

The association of diamond-bearing kimberlite with thickened Archean crust is a guide to their discovery. Recent work in northern Ontario using the POLARIS seismic array (Darbyshire and Snyder 2005) (*see* "Polaris Seismic Network" section) suggests a northward thickening of the lithosphere in northern Ontario as depicted in Figure 10. Based on diamond stability modelling (e.g., Sobolev et al. 2000), thick Archean lithosphere is an essential component for the development and preservation of diamond in kimberlite. The northward-thickening crust of northern Ontario is compatible with the emplacement and preservation of diamonds. From this, one can conclude that the James Bay Lowlands and the Hudson Bay Lowlands of Ontario present optimum conditions for the discovery of additional diamond-bearing kimberlite. Complexities in the lithosphere and mantle, as indicated by the preliminary results of the POLARIS research, may provide insight into areas that have enhanced kimberlite and diamond prospectivity.

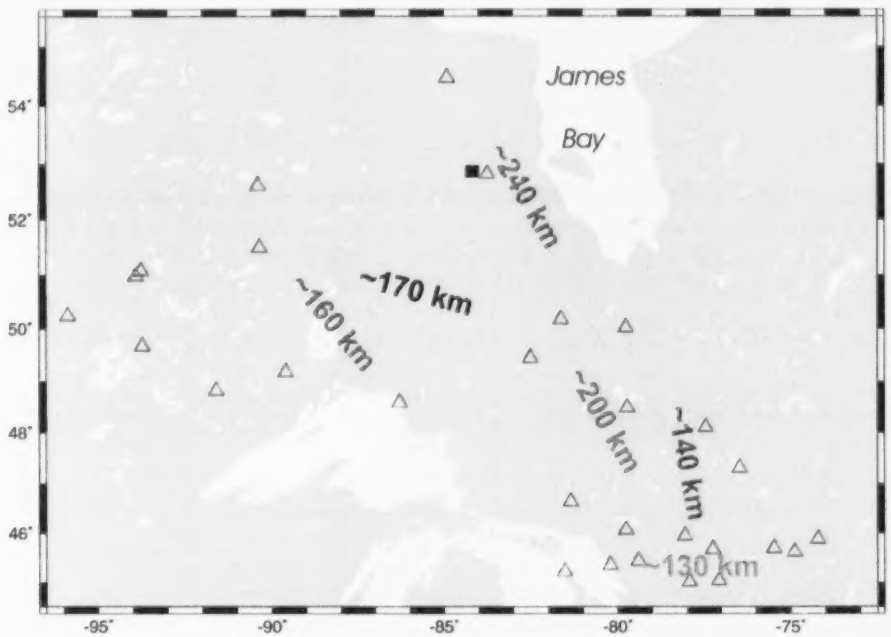

Figure 10. Apparent lithospheric thickness (km) of northeastern Ontario, derived from seismic surface wave array analysis, *adapted from* Darbyshire and Snyder (2005). Δ Seismic monitoring station. ■ De Beers Canada Inc. Victor Diamond Mine.

Gold

Recent work by exploration companies in the vicinity of past-producing gold mines has resulted in the delineation of additional near-surface gold resources that may be amenable to low-cost, open pit mining. Examples include the Pamour Mine that is now being worked solely as an open pit operation after many years of combined underground and open pit mining.

A near surface gold resource has been identified by Vedron Gold Inc. at the Buffalo Ankerite Mine, another past producer in the Timmins camp. Similarly, Temex Resources Corp. have encountered significant gold mineralization at the Hugh Pam and Broulan Reef mines in Whitney Township. These are good examples of recent exploration success in the vicinity of past-producing mines, stimulated by the rising demand for gold.

Mining properties with gold resources are again in demand as a result of the favourable gold price. Much patented land remains untested in Timmins, often in the immediate vicinity of operating, or past-producing gold mines. Unexplored mining lands in the immediate Timmins area hold the highest promise for new discoveries in a mature mining community.

OGS ACTIVITIES AND RESEARCH BY OTHERS

G. Beakhouse, Precambrian Section, OGS, and K. Cassidy, Western Australia University, in conjunction with Porcupine Joint Venture examined the relationship between gold mineralization and felsic intrusions in the Timmins area.

E. Dinel, University of Ottawa, continued PhD research on Tisdale assemblage rocks at the Hoyle Pond Mine.

C. Duggan, PhD candidate, Trinity College, Dublin, Ireland, is developing a technique to calibrate the colour change in the acritarch microfossil *Veryhachium* with vitrinite reflectance. Candidate samples for this technique include samples from the Moose River Basin.

D. Niedermiller, Wayne State University, Detroit, Michigan, commenced work on an MSc thesis on the Leadbetter property in Chabanel Township. Her thesis is entitled "Origin of the diamonds in the Leadbetter Prospect near Wawa, Ontario".

M. Rodrigues, University of Brasilia, Brazil, did comparative studies of the socioeconomic aspects of select mining communities in Brazil and northern Ontario.

Discover Abitibi

In the third year of its mandate, Discover Abitibi oversaw the completion of a large number of geoscience projects within its area of investigation covering the western Abitibi Subprovince. Within its bounds are the participating communities of Timmins, Black River–Matheson and Kirkland Lake. The results of geoscience surveys completed over the last several years were published as Open File Reports and Preliminary maps by the Publications Services Section of the Mines and Minerals Division.

Publications released during 2005 as part of the Discover Abitibi initiative are identified in Table 22.

Highlights of the Discover Abitibi projects include the release of seismic data over the Porcupine–Destor fault and in the vicinity of producing gold mines.

POLARIS Seismic Network

As part of the POLARIS seismic network (Portable Observatories for Lithospheric Analysis and Research Investigating Seismicity), F. Darbyshire (Carelton University, Ottawa, Ontario) and J. Drysdale (Natural Resources Canada, Geological Survey of Canada) deployed an array of solar-powered seismic monitoring stations throughout

northern Ontario to augment previously established stations. Funded through FedNor, 6 stations were established in 2005. The stations are located at Timmins, Kasabonika Lake, Neskatantaga, Aroland-Nakina, Moosonee and New Liskeard.

The additional sesimic stations have lowered the earthquake detection threshold in the James Bay Lowlands from 3.5 to about 2.0 on the Reichter scale. As well, the new seismic data have been instrumental in discerning and refining the identification of deep crustal structures in the area. The sesimic stations augment previously established stations including one at De Beers Canada Inc. – Victor Diamond Project and one near Peawanuck in the Sutton Inlier (Figure 11). Details of individual seismic station recordings are presented on the POLARIS website at www.polarisnet.ca.

Results of the data analysis are useful in determining lithospheric thickness and have direct application in the search for diamonds in kimberlite as well as in the identification of ground motions and possible earthquake hazards.

Figure 11. POLARIS seismic monitoring station (SILO) northern Ontario, installed on extensive diabase outcrop of the Sutton Hills. Photo courtesy of POLARIS.

ACKNOWLEDGEMENTS

Information on past activities reported in the text are from assessment files and other files of the Timmins Resident Geologist Office unless otherwise noted. Information on current mining and exploration activities was provided by individual prospectors and exploration and mining company personnel, compiled from assessment files and obtained from public information sources. Assessment files received in 2005 by the Timmins Regional Resident Geologist Office are listed in Table 21.

REFERENCES

Atkinson, B.T., Hailstone, M., Seim, G.W., Wilson, A.C., Draper, D.M., Bulman, V.J. and Pace, A. 2005. Report of Activities 2004, Resident Geologist Program, Timmins Regional Resident Geologist Report: Timmins and Sault Ste. Marie Districts; Ontario Geological Survey, Open File Report 6149, 93p.

Ayer, J.A., Thurston, P.C., Bateman, R., Dubé, B., Gibson, H.L., Hamilton, M.A., Hathaway, B., Hocker, S.M., Houlé, M.G., Hudak, G., Isolatov, V.O., Lafrance, B., Lesher, C.M., MacDonald, P.J., Péloquin, A.S., Piercey, S.J., Reed, L.E., and Thompson, P.H. 2005. Overview of results from the Greenstone Architecture Project: Discover Abitibi Initiative; Ontario Geological Survey, Open File Report 6154, 146p.

Brown, P.A.R. 2005. Sampling and laboratory analysis for Mori Diamonds Inc., Mori Diamond Property, Chabanel and Bailloquet townships; Timmins Regional Resident Geologist's Office, Chabanel Township, assessment file WP Chabanel.78, unpaginated.

Darbyshire, F.A. and Snyder, D.B. 2005. Probing the mantle beneath northern and eastern Ontario; poster, American Geophysical Union fall meeting, San Francisco, CA, USA, December 5-9, 2005. Poster available at: http://www.polarisnet.ca/FedNor/DA/2005AGUposter.pdf

Fumerton, S. and Houle, K. 1995. Mineral prospects in the Swayze greenstone belt, volume 1, parts of NTS 41O; Ontario Geological Survey, Open File Report 5912, 371p.

Hathway, B., Hudak, G. and Hamilton, M.A. 2005. Geological setting of volcanogenic massive sulphide mineralization in the Kamiskotia area: Discover Abitibi Initiative; Ontario Geological Survey, Open File Report 6155, 81p.

Mosher, G.Z. and Rennie, D.W. 2005. Technical report on the Lakemount Ni-Cu-PGE Zone, Wawa Area, Ontario; NI 43-101 report prepared for Platinum Group Metals Ltd., 134p.

Ojakangas, R.W. 1985. Review of Archean clastic sedimentation, Canadian Shield; major felsic volcanic contributions to turbidite and alluvial fan – fluvial facies associations; *in* Ayres, L. D., Thurston, P. C., Card, K. D. and Weber, W. (Eds.), Evolution of Archean Supracustal Sequences, Geological Association of Canada Special Paper 28, p.23-47.

Oosterman, D. 2004. Report on the Hong Kong Property, northern Ontario for Wallbridge Mining Company; Timmins Regional Resident Geologist's Office, Hong Kong Township, assessment file T-5086, 19p.

Roscoe, W.E., Evans, L, Rennie, D.W. and Brady, B.S. 2003. Report on the Clavos, Stock Mine, Taylor, Central Timmins, and Golden Reward properties in the Timmins Area of northeastern Ontario; unpublished report prepared for St Andrew Goldfields Ltd., unpaginated.

Sage, R.P., Rebic, Z., Abercrombie, S., Neale, K., MacMillan, D., England, D. and Calvert, T. 1982. Precambrian geology of Chabanel Township, Algoma District; Ontario Geological Survey, Preliminary Map P.2439, scale 1: 15 840.

Sobolev, N.V., Fursenko, B.A., Goryainov, S.V., Shu, J., Hemley, R.J., Mao, H-k., and Boyd, F.R. 2000. Fossilized high pressure from the Earth's deep interior: The coesite-in-diamond barometer; *in* Proceedings of the National Academy of Sciences of the United States of America (PNAS), v.97, p.11875-11879.

Table 21. Assessment files received in the Timmins District in 2005.

Abbreviations

AEM	Airborne electromagnetic survey
AMAG	Airborne magnetic survey
Anlys	Analysis
Beep	Beep Mat survey
Bulk	Bulk sampling
Comp	Data compilation
DD	Diamond drilling
DGP	Down-hole geophysics
EM	Electromagnetic survey
GC	Geochemical survey
GL	Geological Survey
Grav	Gravity survey
IP	Induced polarization survey
MAG	Ground magnetic survey
Man	Manual labour
Lc	Linecutting
OVD	Overburden drilling
Rept(s)	Report(s)
Rcalc	Resource calculations
Pet	Petrographic analyses
Pr	Prospecting
Samp	Sampling (other than bulk)
Str	Stripping
Tr	Trenching

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Abbie Lake	Moses, J.P.	2005	Pr, Assays	2.30181	WP Abbie Lake - 27
Abbie Lake, Keating Additional	Thibodeau, R.R.	2004	Pr, Samp, GL	2.29193	WP Abbie Lake - 26
Adams, Eldorado	Outokumpu Mines Inc.	1994	MAG, EM	Donation	T-5224
Adams, Eldorado, Deloro	Outokumpu Mines Inc.	1994	MAG, EM	Donation	T-5225
Adams, Eldorado, Deloro	Outokumpu Mines Inc.	1994 - 1995	EM, MAG	Donation	T-5227
Adams, Eldorado, Deloro, Shaw	Outokumpu Mines Inc.	1996 - 1999	AEM, AMAG	Donation	T-5226
Ardagh	The Consumers' Gas Company	1972	DD - 1 - 847ft, Anlys	Donation	T-5109
Aurora, Hanna, Mann, Newmarket, Pyne, St. John	Moneta Porcupine Mines Inc. / Geodex Minerals Ltd. JV	2003 - 2005	GC, Assay, Lc	2.29769	T-5147
BMA 521 831, 521 832, 522 832, 523 824, 523 831, 523 832, 523 833, 524 824, 524 831, 524 832, 525 824, 526 824, 526 832	Leeward Capital Corp.	2004	Grav	2.29408	T-5154
BMA 523 831	Big Red Diamond Co. / Metalex Ventures Ltd.	2003	MAG	2.29315	T-5099
BMA 523 833	Big Red Diamond Co. / Metalex Ventures Ltd.	2003	MAG	2.29315	T-5099
BMA 523 862, BMA 523 861	Northern Shield Resources Inc.	2004	GC, IP, DD - 1 - 151m, Pet	2.29233	T-5115
BMA 524 832	Big Red Diamond Co. / Metalex Ventures Ltd.	2003	MAG	2.29315	T-5099
BMA 525 832	Big Red Diamond Co. / Metalex Ventures Ltd.	2003	MAG	2.29315	T-5099

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
BMA 525 832, 524 832, 523 832, 525 831, 524 831, 523 831, 522 831, 525 833, 524 833	Diadem Resources Ltd.	2005	AMAG	2.30569	T-5207
BMA 525 854, BMA 526 854, BMA 527 853, BMA 527 854	Probe Mines Limited	2005	AMAG, AEM	2.30094	T-5166
BMA 526 834	Big Red Diamond Co.	2004	MAG	2.29168	T-5084
BMA 526 834	De Beers Canada Exploration Inc.	2004	MAG, Grav	2.29500	T-5111
BMA 526 834, BMA 527 834	Dumont Nickel Inc.	2004 - 2005	GC, Anlys	2.29513	T-5179
BMA 526 862	Condor Diamond Corp.	2004	MAG, EM, Lc	2.29749	T-5146
BMA 526 862, 527 862, 527 861	Noront Resources Ltd.	2004	MAG, EM	2.29683	T-5174
BMA 526 862, BMA 527 862	Fancamp Exploration Ltd.	2003	AEM, AMAG	2.29705	T-5131
BMA 526 862, BMA 527 862	Fancamp Exploration Ltd.	2004	MAG, EM, Lc	2.29704	T-5130
BMA 527 821, 527 834, 527 861, 527 862, 528 832, 528 834, 528 861	1231674 Ontario Ltd.	2005	AMAG	2.29914	T-5162
BMA 527 833	Pele Mountain Resources Inc.	2003 - 2005	Anlys	2.29903	T-5175
BMA 527 833, BMA 527 834, BMA 528 834, BMA 528 841	Pele Mountain Resources Inc.	2003 - 2004	GL, MAG, DD - 8 - 823ft, Lc, Samp	2.29054	T-5121
BMA 527 841	De Beers Canada Exploration Inc.	2004	Tr, Samp	2.28900	T-5070
BMA 527 861	Freewest Resources Canada Inc.	2004	DD - 1 - 190m, Assays	2.29710	T-5145
BMA 527 861, 527 862, 526 861	Freewest Resources Canada Inc.	2004	MAG, EM, Lc	2.29709	T-5144
BMA 527 861, BMA 526 862	Noront Resources Ltd.	2003	AEM, AMAG	2.29682	T-5126
BMA 527 861, BMA 527 862	Freewest Resources Canada Inc.	2003	AMAG, AEM	2.29707	T-5137
BMA 528 834	Waseco Resources Inc.	2004	DD - 1 - 151m	2.29328	T-5098
BMA 528 854, 528 861, 531 854, 531 861, 531 862, 532 861	MacDonald Mines Limited	2003 - 2005	AEM, AMAG	2.29678	T-5170
Brackin	Goldwright Explorations Inc.	2005	IP, MAG, Lc	2.29793	WT Brackin - 53

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Breckenridge, Carney, Derry, Ermine, Hawkins, Hook, Irving Lascelles, Legge, Lipton, Lizar, Makawa, Marjorie, Martin, Mildred, Moorehouse, Mosambik, Woolrich	Algoma Ore Properties Ltd.	1957, 1980	AMAG, AEM	Donation	WT Martin - 3
Bristol	Band-Ore Resources Ltd.	2003 - 2005	DD - 25 - 8399m, Assay	2.30904	T-5249
Bristol	Explorers Alliance Corporation	2004	DD - 1 - 246m	2.29983	T-5065
Bristol	Liberty Mineral Exploration Inc.	2005	MAG, Lc	2.29892	T-5161
Bristol	Tom Exploration Inc.	2003	IP	2.29527	T-5114
Brower	Haire, P.G.	2004	OVD - 1 - 64ft, DD - 2 - 130ft, Assay	2.29423	T-5103
Byers	Falconbridge Limited	2004	EM, MAG	2.30831	T-5242
Byers	Falconbridge Limited	2005	EM, MAG	2.30764	T-5215
Byers	Falconbridge Limited	2005	EM, MAG	2.30762	T-5216
Byers	Lalonde, D.J.	2005	Lc, MAG, EM	2.29206	T-5089
Byers, Loveland	Gervais, L.	2005	Lc, EM	2.29953	T-5165
Byers, Loveland, Moberly, Thorburn	Consolidated Big Valley Resources Inc.	2005	AEM, AMAG, Assay, DD - 5 - 1051m	2.30384	T-5254
Carman, Langmuir	Outokumpu Mines Inc.	1996	EM, MAG	Donation	T-5232
Carman, Langmuir	Outokumpu Mines Inc.	1998	MAG, EM	Donation	T-5231
Carman, Langmuir	Outokumpu Mines Inc.	1998	EM	Donation	T-5233
Carscallen	Falconbridge Limited	2004	EM	2.30894	T-5237
Carscallen	Morgan, C.R.	2005	IP	2.30578	T-5228
Carscallen, Whitesides	Falconbridge Limited	2004 - 2005	MAG, EM	2.30555	T-5200
Carter	Erana Mines Ltd.	2004	Pr, Samp, Assay	2.29680	T-5129
Chabanel	3814793 Canada Inc.	2004	Pr, Samp, Bulk, Anlys, Assays, Lc, MAG	2.28786	WP Chabanel - 73
Chabanel	Algoma Steel Corporation	unknown	GL	Donation	WP Chabanel - 74
Chabanel	Dianor Resources Inc.	2005	GL	2.30622	WP Chabanel - 75
Chabanel	Mori Diamonds Inc.	2005	Assay, GC	2.30683	WP Chabanel - 78
Chabanel, Bailloquet	Metalex Ventures Limited	2005	GL, Samp, Anlys	2.30680	WP Chabanel - 76
Chabanel, Bailloquet	Mori Diamonds Inc.	2005	GL, Assay	2.30681	WP Chabanel - 77
Chester	1478837 Ontario Inc.	2004	Lc, MAG, EM	2.28956	T-5073
Chester	Murgold Resources Inc.	1980 - 1982	Maps	Donation	T-5250
Chester	Murgold Resources Inc.	1983	Rept, GL, Assays	Donation	T-5250
Chester	Murgold Resources Inc.	1983 - 1984	Memos	Donation	T-5250
Clergue	6070205 Canada Inc.	2005	DD - 2 - 92m	2.29444	T-5106
Cody	Raine, B.N.	2005	GL, Samp, Assays	2.30260	T-5187
Cote	Falconbridge Limited	2004	MAG, EM	2.30827	T-5239

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
David Lakes	Tremblay, M.A.	2004	MAG, Lc	2.29668	WP David Lakes - 52
David Lakes, Camp Lake	Messina Minerals Inc.	2004	Pr, Samp, Assay	2.28850	WP David Lakes - 51
Deloro	L.B.L. Richgold Mines Incorporated	1998	DD - 2 - 1867ft	Donation	T-5152
Denton	6070205 Canada Inc.	2004	DD - 1 - 57m	2.29823	T-5195
Denton	Bonhomme, J.-C.	2004	DD - 2 - 264m, Samp, Assay	2.28746	T-5083
Denton	Eloro Resources Ltd.	2005	Pr, Samp	2.29809	T-5180
Derry, Ermine, Lizar	Vestranix Corporation Limited	1987	Rept	Donation	WT Derry - 9
Dore	Mortimer, C.H.	2003 - 2004	DD - 4 - 2640ft	2.30176	T-5198
Duff, Mann, Reaume	INCO Technical Services Limited	2003 - 2004	EM, MAG, GL, Lc	2.29347	T-5124
Dundonald	Liberty Mineral Exploration Inc.	2004	Str, Samp, Assay	2.29173	T-5105
Dundonald	Meunier, D. / Pegg, C.	2005	GC	2.30316	T-5205
Dundonald, German	Meunier, D.	2002	GC, Assay	2.28677	T-5087
Eldorado	2004428 Ontario Inc.	2003 - 2004	EM	2.30134	T-5222
Eldorado	2004428 Ontario Inc.	2005	DD - 1 - 125m	2.29998	T-5169
Eldorado, Langmuir	Outokumpu Mines Inc.	1994 - 1995	EM, MAG	Donation	T-5229
Eldorado, Langmuir	Outokumpu Mines Inc.	1994 - 1995	EM, MAG	Donation	T-5230
Esquega	3814793 Canada Inc.	2004 - 2005	MAG, GL	2.30841	WP Esquega - 36
Esquega	Hollinger Mines Limited	unknown	Maps	Donation	WP Esquega - 35
Evelyn	INCO Technical Services Limited	2003 - 2004	EM, GL, MAG, Lc	2.29011	T-5118
Finan	Patricia Mining Corp.	2004	DD - 9 - 5196m, Assays	2.29774	WP Finan - 78
Fournier	Big Red Diamond Co.	2004	OVD - 5 - 406ft, Samp, Anlys	2.29773	T-5143
Fripp, Musgrove	Daxl, H.	2003	Lc, EM, IP, Samp, Beep	2.28911	T-5071
Geary	Falconbridge Limited	2004	MAG, EM, Lc	2.29732	T-5135
Geary	Falconbridge Limited	2004	EM, MAG, Lc	2.29885	T-5157
Geary, Wilhelmina	Falconbridge Limited	2004	Lc, MAG, EM	2.29886	T-5158
Godfrey	Falconbridge Limited	2004	MAG, EM, Lc	2.29888	T-5160
Godfrey	Sea Green Capital Corp.	2004 - 2005	EM, DD - 1 - 452m	2.30594	T-5255
Greer	The Consumers' Gas Company	1972	DD - 1 - 1110ft, Anlys	Donation	T-5108
Groves	2004428 Ontario Inc.	2003	Pr, Assays	2.30554	T-5236
Halliday	Noranda Inc.	2005	MAG, EM	2.30651	T-5208
Hambleton, Odlum	Corona Gold Corporation	2004	DD - 11 - 3588m, Assays, Rcalc	2.30117	WP Hambleton - 19
Hanlan	Algoma Ore Properties Ltd.	1958	Dip Needle, EM	Donation	T-2229
Hanna	Falconbridge Limited	2004	MAG, EM	2.29734	T-5139
Hanna	Falconbridge Limited	2004	DD - 2 - 474m	2.29887	T-5159
Hanna	INCO Technical Services Limited	2003 - 2004	EM, Lc, GL, MAG	2.29012	T-5117
Hanna	INCO Technical Services Limited	2003 - 2004	MAG, EM, GL, Lc, DD - 2 - 583m	2.29012	T-5122

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Hanna, Mann	Falconbridge Limited	2004	MAG, EM, Lc	2.29730	T-5140
Harmon	Ontario Hydro Electric Commission	1978 - 1979	DD - 15 - 1529ft	Donation	T-5113
Hawkins	Algoma Ore Properties Ltd.	1957	AMAG, AEM, DD - 3 - 2017ft	Donation	WT Hawkins - 35
Hawkins	McKinnon, D.	2005	Str	2.30085	WT Hawkins - 36
Heenan	Aube, A. / Hussey, J.C.	2005	EM, MAG	2.30698	T-5197
Heenan, Marion	Vencan Gold Corporation	2005	Lc, MAG	2.29451	T-5112
Hong Kong, Edith	Wallbridge Mining Company Ltd.	2003 - 2004	GL, Assay	2.28468	T-5086
Horden	M.J. Labelle Co. Ltd.	2002	Tr, Samp, Assay	2.30069	T-5168
Horwood	Hedman Resources Limited	2002 - 2003	GC, GL, DD - 26 - 1720m, MAG, EM, Assays, Anlys, Rcalc, Pet	2.30684	T-5235
Horwood	JML Resources Limited	2004	Lc, MAG, IP	2.29413	T-5102
Ivanhoe	Morin, R.J.	2004	Pr, Samp, Assay	2.29862	T-5155
Jacobson	Funk, H.	2005	Str, Samp, Assays	2.30223	WP Jacobson - 85
Jacobson	Robert, J. / Tremblay, M.A.	2004	Str, GL, Samp, Assay	2.28899	WP Jacobson - 84
Jamieson, Robb, Godfrey, Turnbull	Daxl, H. / Gryba, P.	2004	Pr, Lc, GL, Samp, Assay, IP	2.28860	T-5092
Kenogaming	Golden Range Resources Inc.	1984	Rept	Donation	T-2751
Kineras	Baltic Resources Inc.	2005	Str	2.30740	T-5223
Langmuir	Inspiration Mining Corp.	2005	EM, MAG, Lc	2.29718	T-5127
Langmuir	Liberty Mineral Exploration Inc.	2004 - 2005	DD - 2 - 240m	2.29306	T-5153
Langmuir	Metal Mines Inc.	2005	DD - 2 - 276m	2.29722	T-5128
Lastheels, McMurray	Dianor Resources Inc.	2005	AMAG	2.30238	WP Lastheels - 13
Leclaire	3814793 Canada Inc.	2004 - 2005	Lc, MAG, Samp, Assays	2.29617	WP Leclaire - 12
Lizar, Breckenridge, Mosambik, Nameigos	Teck Cominco Limited	2004	EM, IP	2.29129	WT Lizar - 29
Lizar, Breckenridge, Mosambik, Nameigos	Teck Cominco Limited	2004	DD - 8 - 1514m, Samp, Assay	2.29548	WT Lizar - 30
Loveland	Falconbridge Limited	2004	EM, MAG	2.30828	T-5240
Loveland	Falconbridge Limited	2004	EM, MAG	2.30830	T-5241
Loveland	Western Kidd Resources Inc.	2003 - 2005	GL, GC, Assays	2.30211	T-5184
Loveland	Western Kidd Resources Inc.	2004	DD - 3 - 576m, Samp, Assay	2.29038	T-5110
Loveland	Western Kidd Resources Inc.	2004	DD - 1 - 500m, Assays	2.29663	T-5125
Loveland	Western Kidd Resources Inc.	2004 - 2005	EM	2.30076	T-5167
Loveland	Western Kidd Resources Inc.	2004 - 2005	DGP	2.29986	T-5181
Loveland	Woodruff Capital Management Inc.	2004	EM	2.29344	T-5107
Loveland, Thorburn	Falconbridge Limited	2004	EM	2.30826	T-5238
Lower Detour Lake	Dentonia Resources Ltd.	2005	MAG, EM	2.30318	T-5189
Mahaffy	INCO Technical Services Limited	2004	Lc, MAG, EM	2.29023	T-5081
Mahaffy	INCO Technical Services Limited	2004	Lc, MAG, EM	2.29023	T-5081

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Mallard	Morin, R.J.	2004	Pr, Samp, Assay	2.29863	T-5149
Marsh, Stover	North American Mining Exploration	1983	Rept	Donation	WP Marsh - 2
Matheson	Meunier, D. / Pegg, C.	2005	GC	2.30637	T-5210
Matheson	Porcupine Joint Venture	2004	DD - 3 - 1064m, Samp, Assay	2.29312	T-5095
Matheson	Porcupine Joint Venture	2005	DD - 1 - 200m, Samp, Assay	2.29403	T-5101
Matheson, Evelyn	Porcupine Joint Venture	2004	DD - 2 - 604m, Samp, Assay	2.29312	T-5095
McArthur, Bartlett	Eloro Resources Ltd.	2005	Lc, MAG	2.29239	T-5116
McArthur, Douglas	Mustang Minerals Corp.	2004	AMAG, AEM	2.29089	T-5088
McMurray	Artisan Gold Inc.	2003 - 2005	Pr, Samp	2.29754	WP McMurray - 95
Mishibishu Lake	Murgor Resources Inc.	2004	GL, Samp, Assay	2.28373	WP Mishibishu Lake - 66
Mishibishu Lake	Murgor Resources Inc.	2004	GL, Tr, Samp, Assay	2.28770	WP Mishibishu Lake - 67
Mishibishu Lake, Abbie Lake	Golden Chalice Resources Inc.	2005	Pr, Samp, Assay	2.30064	WP Mishibishu Lake - 68
Mishibishu Lake, St. Germain	Granges Exploration Limited	1986 - 1987	Rept, Assay, Pet, Realc	Donation	WP Mishibishu Lake - 69
Mishibishu Lake, St. Germain	Mishi Gold Corporation Limited	1988	Realc	Donation	WP Mishibishu Lake - 70
Mishibishu Lake, St. Germain	Mishi Gold Corporation Limited	1988	Rept	Donation	WP Mishibishu Lake - 70
Moberly	Falconbridge Limited	2005	EM, MAG	2.30761	T-5219
Montcalm	Aurora Platinum Corporation	2003	AEM, AMAG	2.29153	T-5104
Montcalm	Aurora Platinum Corporation	2004	DD - 4 - 1542m, Samp, Assays	2.29153	T-5104
Montcalm	Falconbridge Limited	2004	EM, MAG, Lc	2.29724	T-5132
Montcalm, Belford, Melrose, Nova, Strachan, Watson	Falconbridge Limited	2004 - 2005	AMAG, AEM	2.29770	T-5151
Montcalm, Belford, Nova, Watson	Falconbridge Limited	2005	EM, MAG	2.30938	T-5245
Montcalm, Strachan	Falconbridge Limited	2004	AEM, AMAG	2.28771	T-5074
Montcalm, Strachan	Falconbridge Limited	2004	DD - 1 - 233m, Samp	2.28784	T-5075
Montcalm, Strachan	Falconbridge Limited	2004	Str, Tr, GL	2.28785	T-5076
Montcalm, Strachan	Teck Exploration Ltd.	1997	EM	Donation	T-4068
Murphy	Gervais, L.N.	2003 - 2005	Pr, Samp, Assays	2.29956	T-5204
Murphy	Raine, B.N.	2005	Pr, Assays	2.29979	T-5171
Musgrove	Dumoulin, A.H.	1969	Rept, Assays	Donation	T-1071
Musgrove, Fripp	Daxl, H.	2003 - 2004	IP	2.30599	T-5209
Naveau, Bostwick, Lendrum, McMurray, Lastheels, Rabazo, Dulhut, Nebonaionquet, LaRonde, Peterson, Redsky, Restoule	Geological Survey of Canada	1928 - 1930	Map (GL)	Donation	WP Naveau - 16
Ogden	Grant Forest Products Corp.	2004 - 2005	MAG, GC	2.30351	T-5191

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Ogden	Lake Shore Gold Corp.	2004	DD - 1 - 329m, Samp, Assay	2.29207	T-5090
Ogden	Porcupine Joint Venture	2005	DD - 1 - 269m, Assays	2.30504	T-5206
Ogden, Deloro	L.B.L. Richgold Mines Incorporated	2004	Pr, Samp, Assay	2.28709	T-5091
Osway	Osprey Gold Corp.	2004	DD - 4 - 3150ft	2.29401	T-5203
Osway, Huffman	Osway Explorations Ltd	1980 - 1984	Repts, Rcalc	Donation	T-5244
Pilot Harbour, Point Isacor	River Gold Mines Ltd.	2002 - 2003	DD-34, Samp, Assay	2.27776	WP Point Isacor - 22
Pitt, Valentine	McKinnon, D.	2005	AEM, AMAG	2.29580	T-5120
Point Isacor	MetalCORP Ltd.	2004	Pr, Assay	2.30514	WP Point Isacor - 25
Point Isacor	River Gold Mines Ltd.	2003	DD - 32 - 5226m	2.29536	WP Point Isacor - 23
Point Isacor	River Gold Mines Ltd.	2004	Assay, DD - 6 - 983m	2.29605	WP Point Isacor - 24
Price	Eloro Resources Ltd.	2005	IP, MAG	2.30968	T-5248
Price	Lake Shore Gold Corp.	2005	DD - 2 - 610m, Samp, Assay	2.29377	T-5100
Prosser	Pegg, C.C.	2004	GC, Samp	2.28974	T-5077
Rabazo	Algoma Steel Corporation	1982	Maps (GL, MAG, EM)	Donation	WP Rabazo - 49
Rabazo	Cyprus Explorations Corporation Limited	1968	Rept, Assays	Donation	WP Rabazo - 48
Reaume	Falconbridge Limited	2004	EM, MAG, Lc	2.29731	T-5136
Reaume	Falconbridge Limited	2004	DD - 1 - 254m, Assays	2.30309	T-5188
Reeves	Maple Minerals Corp.	2005	DD - 1 - 248m, Assays	2.29597	T-5133
Reid, Thorburn	Falconbridge Limited	2005	EM, MAG	2.30765	T-5220
Riggs	Band-Ore Resources Ltd.	2004	DD - 6 - 284m, Assays	2.30099	WP Riggs - 68
Riggs	Patricia Mining Corp.	2004	DD - 8 - 524m, Tr, Samp, Assay	2.29871	WP Riggs - 67
Robb	Explorers Alliance Corporation	2005	DD	2.29999	T-5190
Robb	Explorers Alliance Corporation	2005	DD - 1 - 392m	2.30146	T-5190
Robb	Kerr, G. / Binks, J.	2003	Man	2.30359	T-4877
Robb	Rousseau, R.R.	2004	Tr, Samp, Assay	2.28360	T-5069
Robb, Cote	Explorers Alliance Corporation	2005	EM, MAG	2.30763	T-5221
Roche	Algoma Ore Properties Ltd.	1957, 1959	EM, GL, MAG	Donation	T-2210
Semple	Falconbridge Limited	2004	EM, MAG	2.30909	T-5256
Semple, Sothman, Hutt	Mustang Minerals Corp.	2004	AMAG, AEM	2.28603	T-5093
Shaw	Caron, M.G.	2004	Lc, MAG, EM	2.28981	T-5078
Shaw	Croxall, J.E.	2005	Str, Assay	2.30691	T-5212
Shaw	Laurion Gold Inc.	2005	GC	2.31003	T-5257
Sothman	Falconbridge Limited	2005	MAG	2.30910	T-5251
Sothman	Keast, T.M.	2005	DD - 1 - 152m	2.29826	T-5150
Sothman	Vuksanovich, E.	2004 - 2005	GL, Lc, Str	2.29928	T-5163
Sothman, Semple	Mustang Minerals Corp.	2004	Assay, GL	2.30797	T-5234
Stock	St Andrew Goldfields Ltd.	2005	DD - 1 - 55m	2.29350	T-5096

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Stover, West	Laidlaw / Stone / Hume / Mihelcic	2005	MAG, EM	2.30746	WP Stover - 15
Sunday Lake, West of Sunday Lake	Pelangio Mines Inc.	2004 - 2005	DD - 53 - 12,497m, Assays	2.29879	T-5164
Templeton, McFarlan	Algoma Ore Properties Ltd.	1957	Dip Needle, GC, GL	Donation	T-2213
Thorburn	6070205 Canada Inc.	2005	DD - 2 - 548m	2.30192	T-5194
Thorburn	Falconbridge Limited	2005	MAG, EM	2.30254	T-5178
Thorneloe	6070205 Canada Inc.	2004	Pr, Samp, Assays	2.30005	T-5196
Thorneloe	Band-Ore Resources Ltd.	2002 - 2003	Comp, DD - 6 - 1680m, Samp, Assay	2.29032	T-5094
Thorneloe	Band-Ore Resources Ltd.	2003	DD - 46 - 10,536m, Assays	2.29825	T-5148
Thorneloe	Comaplex Minerals Corp.	2005	Assay, DD - 3 - 357m	2.30963	T-5246
Thorneloe	Comaplex Minerals Corp.	2005	GC	2.30965	T-5247
Thorneloe	Porcupine Joint Venture	2004	DD - 2 - 700m, Samp, Assay	2.29142	T-5085
Thorneloe	Porcupine Joint Venture	2004	DD - 1 - 200m, Assays	2.30183	T-5176
Tisdale	Moneta Porcupine Mines Inc.	2005	DD - 1 - 237m, Samp, Aggregate Testing	2.29354	T-5097
Tisdale	Moneta Porcupine Mines Inc.	2005	DD - 1 - 281m	2.29496	T-5119
Tisdale	Porcupine Joint Venture	2004	IP, MAG	2.30715	T-5213
Tisdale	Porcupine Joint Venture	2004	Assays, DD - 6 - 1703m	2.30722	T-5214
Tisdale	Timginn Syndicate	1993 - 1994	DD - 8 - 2793m, Assays	Donation	T-3787
Tully	Argent Resources Inc.	2005	DD - 1 - 323m, Assays	2.30255	T-5193
Tully	Nickel Offsets Limited	1981	Rept, Rcalc	Donation	T-5243
Tully	Porcupine Joint Venture	2005	MAG, IP	2.30243	T-5185
Turnbull	Eloro Resources Ltd.	2004	Tr, Samp, Assay	2.28967	T-5080
Turnbull	Falconbridge Limited	2004	MAG, EM	2.30252	T-5182
Turnbull	Falconbridge Limited	2004	DD - 1 - 165m, Assays	2.30252	T-5182
Turnbull	Falconbridge Limited	2004	MAG, EM	2.30512	T-5201
Valentine	Big Red Diamond Co.	2003 - 2005	GC, Anlys	2.30132	T-5172
Valentine, Pitt, Kilmer, Hamlet, Wacousta	Baltic Resources Inc.	2005	AEM, AMAG	2.29580	T-5123
Wacousta	Baltic Resources Inc.	2005	Str	2.30455	T-5199
Wacousta	Baltic Resources Inc.	2005	Str	2.30671	T-5217
Wark	Pegg, C.C.	2001	GC, Assay	2.28935	T-5072
Warren	Avalon Ventures Ltd.	2004	Bulk, Feasibility, Assays	2.28568	T-5079
Watson, Poulett	Becker Gold Mines Ltd.	2005	DD - 6 - 1025m	2.30182	T-5177
Way	Algoma Ore Properties Ltd.	1958	Dip Needle, EM	Donation	T-2236
Way, Lowther	Algoma Ore Properties Ltd.	1958	EM, Dip Needle	Donation	T-2234
West of Sunday Lake	Pelangio Mines Inc.	2005	MAG, IP	2.30063	T-5173
Whitesides	Falconbridge Limited	2004	EM, MAG, Lc	2.29735	T-5134
Whitesides	Falconbridge Limited	2005	MAG, EM	2.30261	T-5183
Whitney	Liberty Mineral Exploration Inc.	2005	Tr	2.30092	T-5186

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Whitney	Porcupine Joint Venture	2004	DD - 4 - 1599m	2.29739	T-5138
Whitney	ValGold Resources Ltd.	2004	DD - 14 - 3100m, Assays	2.30149	T-5202
Whitney	ValGold Resources Ltd.	2005	IP	2.30653	T-5211
Wilhelmina	Falconbridge Limited	2004	Lc, MAG, EM	2.29884	T-5156
Woolrich	Algoma Ore Properties Ltd.	1964	MAG, EM	Donation	T-2237
Zavitz	Claim Lake Resources Inc.	2005	Str	2.30201	T-5192
Zavitz	Claim Lake Resources Inc.	2005	DD Relog	2.30202	T-5218
Zavitz	Falconbridge Limited	2004	EM, MAG	2.30911	T-5252
Zavitz	Falconbridge Limited	2004	EM, MAG	2.30912	T-5253

Table 22. Publications received by the Timmins Regional Resident Geologist Office in 2005.

Title	Author	Type and Year of Publication[1]
Report of Activities, 2004, Resident Geologist Program, Timmins Regional Resident Geologist Report: Timmins and Sault Ste. Marie Districts	Atkinson, B.T., Hailstone, M., Seim, G.Wm., Wilson, A.C., Draper, D.M., Bulman, V. and Pace, A.	OGS Open File Report 6149
Geological Compilation of the Central Abitibi Greenstone Belt: Kapuskasing Structural Zone to the Québec Border	Ayer, J.A., Berger, B.R., Hall, L.A.F., Houlé, M.G., Johns, G.W., Josey, S., Madon, Z., Rainsford, D., Trowell, N.F. and C. Vaillancourt, C.	OGS Preliminary Map P.3565
Overview of Results from the Greenstone Architecture Project	Ayer, J.A., Thurston, P.C., Bateman, R., Dubé, B., Gibson, H.L., Hamilton, M.A., Hathway, B., Hocker, S.M., Houlé, M.G., Hudak, G., Ispolatov, V.O., Lafrance, B., Lesher, C.M., MacDonald, P.J., Péloquin, A.S., Piercey, S.J., Reed L.E. and Thompson, P.H.	OGS Open File Report 6154[2]
Summary of Field Work and Other Activities 2005	Baker, C.L., Debicki, E.J., Kelly, R.I., Ayer, J.A., Easton, R.M. and Madon, Z.B. (Eds.)	OGS Open File Report 6172
The Timmins–Porcupine Gold Camp, Northern Ontario: The Anatomy of an Archean Greenstone Belt and its Gold Mineralization	Bateman, R., Ayer, J.A., Dubé, B. and Hamilton, M.A.	OGS Open File Report 6158[2]
Precambrian Geology of Tisdale and Parts of Deloro, Mountjoy and Ogden Townships	Bateman, R.	OGS Preliminary Map P.3555[2]
Precambrian Geology, Parts of Whitney and Hoyle Townships	Bateman, R.	OGS Preliminary Map P.3547—Revised[2]
Text from Test Program of Continuously Portable Electromagnetic Systems	Betz, J.E.	Report, 1974
Geochemistry of Exhalites and Graphitic Argillites Near VMS and Gold Deposits	C.T. Barrie and Associates Inc.	CD: OGS Miscellaneous Release—Data 173[3]
Three Dimensional Surficial Geochemistry	Canadian Mining Industry Research Organization (CAMIRO)	CD: OGS Miscellaneous Release—Data 164[3]
Use of a Soil Gas Hydrocarbon Technique to Differentiate Barren Graphitic and Sulphidic Conductors from Ore-Bearing Conductors	Canadian Mining Industry Research Organization (CAMIRO)	CD: OGS Miscellaneous Release—Data 165[3]
Overview of Trends in Canadian Mineral Exploration, 2004	Canadian Intergovernmental Working Group on the Mineral Industry	Report, 2004

Title	Author	Type and Year of Publication[1]
Contributions to Canadian Paleontology	Copeland, M.J., Uyeno, T.T., Bultynck, P., Bamber, E.W., Sando, W.J. and Kalgutkar, R.M.	Geological Survey of Canada Bulletin 444, 1993
Report of Activities, 2004, Resident Geologist Program, Kirkland Lake Regional Resident Geologist Report: Sudbury District	Cosec, M., Farrow, D. and Gaudreau, M.	OGS Open File Report 6151
Additional Indicator Mineral Results from the James Bay Lowland Sampling Program	Crabtree, D.C. and Felix, V.E.	CD: OGS Miscellaneous Release—Data 161
Report of Activities 2004, Resident Geologist Program, Regional Land Use Geologist Report: Northwestern, Northeastern and Southern Ontario Regions	Debicki, R.L., Drost, A.P., Lichtblau, A.F., Fraser, R.J. and Rowell, D.J.	OGS Open File Report 6153
Eabametoong First Nation: Glossary of Geological and Mining-Related Terms	Eabametoong First Nation and Ministry of Northern Development and Mines	OGS Miscellaneous Paper 170
Development of a High Bandwidth Frequency Domain EM System	Ferra Dynamics Inc.	CD: OGS Miscellaneous Release—Data 169[3]
Gedex Airborne Gravity Gradiometer (AGG) System	Gedex Inc.	CD: OGS Miscellaneous Release—Data 166[3]
Development and Demonstration of Novel Field-Portable Sample Preparation Methods for On-Site Geochemical Analysis	Gedex Inc.	CD: OGS Miscellaneous Release—Data 176[3]
GAC/MAC Field Trip #14: Surface Geology and Volcanogenic Base Metal Massive Sulphide Deposits and Gold Deposits of Noranda and Timmins	Gibson, H.L.,Walker, S.D. and Coad, P.R.	Field Guide, 1984
Sampling Lamprophyre Dikes for Diamonds	Grabowski, G.P.B. and Wilson, A.C.	OGS Open File Report 6170[2]
Three Dimensional Geochemistry in the Abitibi: Development of Geochemical Exploration Methods	Geological Survey of Canada (GSC)	CD: OGS Miscellaneous Release—Data 168[3]
Regional Modern Alluvium Sampling of the Kirkland Lake–Matachewan Area, Northeastern Ontario	Guindon, D.L. and Reid, J.L.	OGS Open File Report 6124
Modern Alluvium Data Release, Kirkland Lake–Matachewan Area, Northeastern Ontario	Guindon, D.L. and Reid, J.L.	CD: OGS Miscellaneous Release—Data 129
Paleomagnetism, Geochronology and Geochemistry of Several Proterozoic Mafic Dike Swarms in Northwestern Ontario	Halls, H.C., Stott, G.M. and Davis, D.W.	OGS Open File Report 6171
Geological Setting of Volcanogenic Massive Sulphide Mineralization in the Kamiskotia Area	Hathway, B., Hudak, G. and Hamilton, M.A.	OGS Open File Report 6155[2]
Precambrian Geology of Parts of Godfrey, Turnbull, Carscallen and Bristol Townships	Hathway, B. and Hocker, S.M.	OGS Preliminary Map P.3544—Revised[2]
Precambrian Geology of Parts of Godfrey, Robb, Jamieson, Loveland, Macdiarmid and Thorburn Townships	Hathway, B.	OGS Preliminary Map P.3556[2]
Volcanic Stratigraphy, Synvolcanic Intrusions and Controls on Mineralization at the Archean Genex Mine, Kamiskotia Area, Timmins	Hocker, S.M.	MSc Thesis, Laurentian University, Sudbury, Ontario
Volcanic Stratigraphy and Controls on Mineralization in the Genex Mine Area, Kamiskotia Area	Hocker, S.M., Thurston, P.C. and Gibson, H.L.	OGS Open File Report 6156[2]

Title	Author	Type and Year of Publication[1]
Precambrian Geology of Carman and Langmuir Townships	Houlé, M.G. and Guilmette, C.	OGS Preliminary Map P.3268
Geology, Structure and Gold Mineralization, Kirkland Lake and Larder Lake areas (Gauthier and Teck Townships)	Ispolatov, V., Lafrance, B., Dubé, B., Hamilton, M. and Creaser, R.	OGS Open File Report 6159[2]
Macrofossil, Pollen, and Geochemical Records of Peatlands in the Kinosheo Lake and Detour Lake Areas, Northern Ontario	Kettles, I.M., Garneau, M. and Jetté, H.	GSC Bulletin 545, 2000
Geological History of the Precambrian Rocks in Parts of the Porcupine Mining Area, Canada	Kirwan, J.L.	PhD Thesis, University of London, 1968[3]
The Hunter Mine Reports, 1983-88	Kirwan, J.L.	Report
Quaternary Geology of the Foleyet Area	Kristjansson, F.J. and Kaszycki, C.A.	OGS MAP 2671
Report of Activities 2004, Resident Geologist Program, Red Lake Regional Resident Geologist Report: Red Lake and Kenora Districts	Lichtblau, A., Hinz, P., Ravnaas, C., Storey, C.C., Kosloski, L., Raoul, A. and Gula, R.	OGS Open File Report 6146
Geology of the Alexo Mine Area, Clergue–Dundonald Townships [text & photos only]	Lowther, H.C.	BSc Thesis, University of Western Ontario, London, Ontario, 1950
An Integrated Study of Intrusive Rocks Spatially Associated with Gold and Base Metal Mineralization in the Abitibi Greenstone Belt, Timmins Area and Clifford Township	MacDonald, P.J., Piercey, S.J. and Hamilton, M.A.	OGS Open File Report 6160[2]
Lowlands Drill Hole Data Compilation	McIlraith, S.J. and Stott, G.M.	CD: OGS Miscellaneous Release—Data 152
Report of Activities, 2004, Resident Geologist Program, Kirkland Lake Regional Resident Geologist Report: Kirkland Lake District	Meyer, G., Grabowski, G.P.B., Guindon, D.L. and Chaloux, E.C.	OGS Open File Report 6150
Integrated 3D Geoscientific Deposit Modelling for Enhanced Mineral Prospectivity in the Abitibi Greenstone Belt of Northeastern Ontario: Queenston Mining Inc. – Anoki and McBean Deposits	Mineral Exploration Research Centre and Mining Innovation, Rehabilitation and Applied Research Corporation (MERC and MIRARCO)	OGS Preliminary Map P.3566[2]
Integrated 3D Geoscientific Deposit Modelling for Enhanced Mineral Prospectivity in the Abitibi Greenstone Belt of Northeastern Ontario: St Andrew Goldfields Ltd. – Stock Mine and Clavos Deposit	MERC and MIRARCO	OGS Preliminary Map P.3567[2]
Integrated 3D Geoscientific Deposit Modelling for Enhanced Mineral Prospectivity in the Abitibi Greenstone Belt of Northeastern Ontario: Kirkland Lake Gold Inc. – Macassa Mine	MERC and MIRARCO	OGS Preliminary Map P.3568[2]
Integrated 3D Geoscientific Deposit Modelling for Enhanced Mineral Prospectivity in the Abitibi Greenstone Belt of Northeastern Ontario: Porcupine Joint Venture – Dome, Tisdale and Pamour Mines	MERC and MIRARCO	OGS Preliminary Map P.3569[2]
Integrated 3D Geoscientific Deposit Modelling for Enhanced Mineral Prospectivity in the Abitibi Greenstone Belt of Northeastern Ontario: Falconbridge Ltd. – Kidd Creek Mine	MERC and MIRARCO	OGS Preliminary Map P.3570[2]

Title	Author	Type and Year of Publication[1]
Integrated 3D Geoscientific Deposit Modelling for Enhanced Mineral Prospectivity in the Abitibi Greenstone Belt of Northeastern Ontario: Millstream Mines Ltd. – Potter Mine	MERC and MIRARCO	OGS Preliminary Map P.3571[2]
Integrated 3D Geoscientific Deposit Modelling for Enhanced Mineral Prospectivity in the Abitibi Greenstone Belt of Northeastern Ontario: Queenston Mining Inc. – Upper Canada Mine	MERC and MIRARCO	OGS Preliminary Map P.3572[2]
Integrated 3D Geoscientific Deposit Modelling for Enhanced Mineral Prospectivity in the Abitibi Greenstone Belt of Northeastern Ontario: Newmont Mining Corp. – Holt-McDermott Mine	MERC and MIRARCO	OGS Preliminary Map P.3573[2]
Integrated 3D Geoscientific Deposit Modelling for Enhanced Mineral Prospectivity in the Abitibi Greenstone Belt of Northeastern Ontario: Newmont Mining Corp. – Harker-Holloway Mine	MERC and MIRARCO	OGS Preliminary Map P.3574[2]
Integrated 3D Geoscientific Deposit Modelling for Enhanced Mineral Prospectivity in the Abitibi Greenstone Belt of Northeastern Ontario: Kirkland Lake Gold Inc.– Teck-Hughes, Wright-Hargreaves and Lakeshore Mines	MERC and MIRARCO	OGS Preliminary Map P.3575[2]
Integrated GIS Compilation of Geospatial Data from the Abitibi Greenstone Belt, Northeastern Ontario	MIRARCO	DVD: OGS Miscellaneous Release—Data 186[2]
Development of Methods and Technology for the Discovery of New Resources Around Existing Mine Infrastructure	Mira Geoscience Limited	CD: OGS Miscellaneous Release—Data 172[3]
Downhole Seismic Imaging Method: A New Tool for Deep Mineral Exploration	Mira Geoscience Limited	CD: OGS Miscellaneous Release—Data 175[3]
Development of a Relational Physical Rock Property Database	Mira Geoscience Limited, McMaster University and Geological Survey of Canada	CD: OGS Miscellaneous Release—Data 179[3]
Carbonate Alteration of Mafic and Ultramafic Volcanic Rocks Hosting Hydrothermal Gold Deposits	Nawaratne, S.	MSc Thesis, Laurentian University, Sudbury, Ontario, 1983
Three-Dimensional Modeling of Overburden in the Timmins–Kirkland Lake Region	Ontario Geological Survey (OGS)	CD: OGS Miscellaneous Release—Data 148[2]
Ontario Geochemistry and Indicator Mineral Database	Ontario Geological Survey	DVD: OGS Miscellaneous Release—Data 153
Lithogeochemical Data for Plutonic Rocks Sampled between 2000 and 2003	Ontario Geological Survey	CD: OGS Miscellaneous Release—Data 159
Ontario Drill Hole Database: December 2005 Release	Ontario Geological Survey	CD: OGS Data Set 13—Revision 1
Surficial Geology of North Timmins Region	Ontario Geological Survey	OGS Preliminary Map P.3564[2]

Title	Author	Type and Year of Publication[1]
Airborne Magnetic and Electromagnetic Surveys, Reprocessed SPECTREM$_{2000}$ Data: Residual Magnetic Field and Reinterpreted Electromagnetic Anomalies, Matheson Area	Ontario Geological Survey	OGS MAP 81 954[2]
Airborne Magnetic and Electromagnetic Surveys, Reprocessed SPECTREM$_{2000}$ Data: Overburden Thickness Isopach (From EM Data) and Reinterpreted Electromagnetic Anomalies, Matheson Area	Ontario Geological Survey	OGS MAP 81 955[2]
Airborne Magnetic and Electromagnetic Surveys, Reprocessed SPECTREM$_{2000}$ Data: Original and Reinterpreted Electromagnetic Anomalies, Matheson Area	Ontario Geological Survey	OGS MAP 81 956[2]
Airborne Magnetic and Electromagnetic Surveys, Reprocessed SPECTREM$_{2000}$ Data: Z-Component Channel 2 and Reinterpreted Electromagnetic Anomalies, Matheson Area	Ontario Geological Survey	OGS MAP 81 957[2]
Airborne Magnetic and Electromagnetic Surveys, Reprocessed SPECTREM$_{2000}$ Data: Adaptive X-Component Decay and Reinterpreted Electromagnetic Anomalies, Matheson Area	Ontario Geological Survey	OGS MAP 81 958[2]
Airborne Geophysical Surveys, Grid and Profile data: Squirrel River–Otter Rapids–Moose River Areas	Ontario Geological Survey	CD: OGS Geophysical Data Set 1228
Airborne Magnetic Surveys, Moose River Area (North): Residual Magnetic Field	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 290
Airborne Magnetic Surveys, Moose River Area (South): Residual Magnetic Field	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 291
Airborne Magnetic Surveys, Moose River Area (North): Second Vertical Derivative of the Magnetic Field and Keating coefficients	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 300
Airborne Magnetic Surveys, Moose River Area (South): Second Vertical Derivative of the Magnetic Field and Keating Coefficients	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 301
Airborne Magnetic Surveys, Otter Rapids Area (NW): Residual Magnetic Field	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 285
Airborne Magnetic Surveys, Otter Rapids Area (NE): Residual Magnetic Field	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 286
Airborne Magnetic Surveys, Otter Rapids Area (W-Central): Residual Magnetic Field	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 287
Airborne Magnetic Surveys, Otter Rapids Area (E-Central): Residual Magnetic Field	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 288
Airborne Magnetic Surveys, Otter Rapids Area (South): Residual Magnetic Field	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 289
Airborne Magnetic Surveys, Otter Rapids Area (NW): Second Vertical Derivative of the Magnetic Field and Keating Coefficients	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 295
Airborne Magnetic Surveys, Otter Rapids Area (NE): Second Vertical Derivative of the Magnetic Field and Keating Coefficients	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 296

Title	Author	Type and Year of Publication[1]
Airborne Magnetic Surveys, Otter Rapids Area (W-Central): Second Vertical Derivative of the Magnetic Field and Keating Coefficients	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 297
Airborne Magnetic Surveys, Otter Rapids Area (E-Central): Second Vertical Derivative of the Magnetic Field and Keating Coefficients	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 298
Airborne Magnetic Surveys, Otter Rapids Area (South): Second Vertical Derivative of the Magnetic Field and Keating Coefficients	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 299
Airborne Magnetic Surveys, Squirrel River Area (North): Residual Magnetic Field	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 282
Airborne Magnetic Surveys, Squirrel River Area (South): Residual Magnetic Field	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 283
Airborne Magnetic Surveys, Squirrel River Area (East): Residual Magnetic Field	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 284
Airborne Magnetic Surveys, Squirrel River Area (North): Second Vertical Derivative of the Magnetic Field and Keating Coefficients	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 292
Airborne Magnetic Surveys, Squirrel River Area (South): Second Vertical Derivative of the Magnetic Field and Keating Coefficients	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 293
Airborne Magnetic Surveys, Squirrel River Area (East): Second Vertical Derivative of the Magnetic Field and Keating Coefficients	Ontario Geological Survey / Aur Resources Limited	OGS MAP 60 294
Digital Northern Ontario Engineering Geology Terrain Study	Ontario Geological Survey and Ministry of Natural Resources	CD: OGS Miscellaneous Release—Data 160
Geology of the Kidd–Munro Assemblage in Munro Township, and the Tisdale and Lower Blake River Assemblages in Currie Township	Péloquin, A.S., Houlé M.G. and Gibson, H.L.	OGS Open File Report 6157[2]
Geological Evolution of Part of the Central Superior Province Based on Relationships among the Abitibi and Wawa Subprovinces and the Kapuskasing Structural Zone	Percival, J.A.	PhD Thesis, Queen's University, Kingston, Ontario, 1981
Lower to Middle Devonian Acritarchs of the Moose River Basin, Ontario	Playford, G.	Geological Survey of Canada Bulletin 279, 1977
Airborne Magnetic Survey, Shaded Magnetic Relief, Abitibi Greenstone Belt Compilation	Rainsford, D.	OGS MAP 81 952
Airborne Magnetic Survey, Residual Magnetic Field, Abitibi Greenstone Belt Compilation	Rainsford, D.	OGS MAP 81 953
Gravity and Magnetic Three-Dimensional (3D) Modelling	Reed, L.E.	OGS Open File Report 6163[2]
Two-Dimensional (2D) Reflection Seismic Surveying in the Timmins–Kirkland Lake area; Acquisition, processing, interpretation	Reed, L.E., Snyder, D.B., Salisbury, M.H.	OGS Open File Report 6169[2]
Report of Activities 2004, Resident Geologist Program, Southern Ontario Regional Resident Geologist Report: Southeastern and Southwestern Ontario Districts, Mines and Minerals Information Centre, and Petroleum Resources Centre	Sangster, P.J., Papertzian, V.C., Steele, K.G., Lee, C.R., Barua, M., Laidlaw, D.A. and Carter, T.R.	OGS Open File Report 6152

Title	Author	Type and Year of Publication[1]
Precambrian Geology Compilation Series: Quetico Sheet	Santaguida, F.	OGS MAP 2663, 2001[4]
Precambrian Geology Compilation Series: Thunder Bay Sheet	Santaguida, F.	OGS MAP 2664, 2001[4]
Report of Activities 2004, Resident Geologist Program, Thunder Bay South Regional Resident Geologist Report: Thunder Bay South District	Schnieders, B.R., Scott, J.F., Magee, M.A., Muir, T.L. and Komar, C.	OGS Open File Report 6148
Report of Activities 2004, Resident Geologist Program, Thunder Bay North Regional Resident Geologist Report: Thunder Bay North District	Smyk, M., White, G.D., Magee, M.A. and Komar, C.	OGS Open File Report 6147
Geology of the Northern Superior Area	Stone, D.	OGS Open File Report 6140
Precambrian Geology, Northern Superior Area	Stone, D.	OGS Preliminary Map P.3545
South Swayze Area High-Density Regional Lake Sediment and Water Geochemical Survey, Northeastern Ontario	Takats, P.A. and Jackson, J.E.	OGS Open File Report 6166
Lake Sediment and Water Geochemical Data for the South Swayze Area, Northeastern Ontario	Takats, P.A. and Jackson, J.E.	CD: OGS Miscellaneous Release—Data 150
Central Swayze Area High-Density Regional Lake Sediment and Water Geochemical Survey, Northeastern Ontario	Takats, P.A.	OGS Open File Report 6173
Lake Sediment and Water Geochemical data for the Central Swayze Area, Northeastern Ontario	Takats, P.A.	CD: OGS Miscellaneous Release—Data 188
A New Metamorphic Framework for Gold Exploration in the Timmins–Kirkland Lake Area, Western Abitibi Greenstone Belt	Thompson, P.H.	OGS Open File Report 6162[2]
Quaternary Stratigraphy of the Severn and Winisk Drainage Basins, Northern Ontario	Thorleifson, L.H., Wyatt, P.H. and Warman, T.A.	Geological Survey of Canada Bulletin 442, 1993
Descriptions of Modelling and Coordinate System Conventions for the Integrated Three-Dimensional (3D) Deposit Modelling Project	Thurston, P.C., Cotesta, L., Hawson, C.A. and Vasak, P.	OGS Open File Report 6168[2]
Geochemical Detection of Disseminated Palladium Mineralization in Ontario	University of Ottawa	CD: OGS Miscellaneous Release—Data 170[3]
Precambrian Geology of Menzies Township	Vaillancourt, C., Dessureau, G.R and Zubowski, S.M.	OGS Preliminary Map P.3366
Lithogeochemical Data and Field Photographs for the Wawa Area: Menzies and Musquash Townships	Vaillancourt, C., Zubowski, S.M. and Dessureau, G.R.	CD: OGS Miscellaneous Release—Data 151
Application of a Geodata Analysis System (GeoDAS) to Mineral Exploration in Ontario	York University and Geological Survey of Canada	CD: OGS Miscellaneous Release—Data 171[3]

NOTES
[1] *Publications were issued in 2005 unless otherwise indicated.*
[2] *Publication sponsored by Discover Abitibi Initiative*
[3] *Publication sponsored by the Ontario Mineral Exploration Technologies program*
[4] *Publication sponsored by Operation Treasure Hunt*
[5] *Publication on loan to the Timmins RRGO library*

Ontario

Ontario Geological Survey
Regional Resident Geologist's Program

Timmins Regional Resident Geologist
(Sault Ste. Marie District)—2005

by

M. Hailstone and A. Pace

2006

CONTENTS

Sault Ste. Marie District—2005

INTRODUCTION 1
QUARRYING ACTIVITY 1
Ontario Trap Rock (A Division of R.W. Tomlinson Limited) 1
Gilbertson Enterprises Quarry 1
Nestorville Quarry 2
Root River Sandstone Quarry 2
LaFarge Material and Construction 2
EXPLORATION ACTIVITY 3
Nikos Explorations Ltd. – Copper Precious Metals Mineralization at the Coppercorp and Bellvue Properties 6
Coppercorp Property 6
Bellvue Property 7
Terex Resources Inc. Uranium Diamond-Drill Program in Joubin Township 8
LAND USE PLANNING ACTIVITY 8
SAULT STE. MARIE DISTRICT STAFF ACTIVITIES 8
Special Project 9
A Study of Keweenawan Felsic Rocks 9
Background Geology 10
The Felsic Rocks 10
PROPERTY EXAMINATIONS 14
Access to New Exposures of the Mongoose Lake Mafic Intrusion 14
RECOMMENDATIONS FOR EXPLORATION 14
Copper-Nickel-Platinum Group Element, Bedrock Aggregate Hosted by the Mongoose Lake Intrusion 14
ACKNOWLEDGEMENTS 22
REFERENCES 22

TABLES

1. Exploration activity in the Sault Ste. Marie District in 2005 2
2. Assessment files received in the Sault Ste. Marie District Geologist Office in 2005. 11
3. Property visits completed by the Sault Ste. Marie District Geologist Office in 2005 13
4. Compilation of recommendations for exploration made in past years by Resident Geologist Program staff in Sault Ste. Marie 16
5. Publications received by the Sault Ste. Marie District Geologist Office in 2005. 19
6. Mineral deposits not being mined in the Sault Ste. Marie District in 2005 20

FIGURES

1. Exploration activity and staking in the Sault Ste. Marie District between January 13, 2005 and January 16, 2006 along with quarry locations 4
1B. Staking activity showing claims that came open between January 13, 2005 and January 16, 2006 along with property visits 5
2. Locations of sample sites in the Mamainse Point Formation, Ryan and Kincaid townships 9
3. New access roads to Mongoose Lake Intrusion 15
4. Recommendations for exploration locations 18

Timmins Regional Resident Geologist (Sault Ste. Marie District)—2005

M. Hailstone[1] and A. Pace[2]

[1]District Geologist, Sault Ste. Marie District, Resident Geologist Program, Ontario Geological Survey

[2]District Support Geologist, Sault Ste. Marie District, Resident Geologist Program, Ontario Geological Survey

INTRODUCTION

Mineral production from the Sault Ste. Marie District during 2005 consisted of bedrock aggregate from 5 established quarries. A total of 32 individuals and companies are known to have performed mineral exploration and prospecting in the district during the year. Uranium, gold and copper—IOCG (iron oxide-copper-gold)—were the major exploration targets. Other exploration targets included trap rock, platinum group metals and magmatic copper-nickel sulphides along with VMS style base metals. Details on exploration activity can be found in the following text and by reference to Table 1 and Figures 1 and 1B.

QUARRYING ACTIVITY

Production continued from 5 bedrock quarries established in the Sault Ste. Marie District. The quarries are keyed to Figure 1.

Ontario Trap Rock (A Division of R.W. Tomlinson Limited)

Ontario Trap Rock (map reference A, Figure 1) continued quarrying crushed bedrock aggregate from Nipissing diabase at their operation located 3 km east of the town of Bruce Mines in Plummer Additional Township. R.W. Tomlinson Limited produces approximately 800 000 tonnes of high-quality aggregate from this facility yearly for the construction industry.

The operating season begins in March and normally ends in November, with 25 people employed on a seasonal basis. About 90% of the aggregate product is transported by ship from Ontario Trap Rock's deep-water port on Lake Huron, with the remaining product transported by rail and truck. During the early part of the 2005 shipping season, lake water levels were reported to be higher than in recent years allowing increased shipment size with resulting lower costs. During the latter part of the season, water levels once again fell to lower than normal, resulting in smaller shipments. Production and sales during the year are governed by market demand, with a production goal pegged at 1 million tonnes in 2005. The quarry has an estimated $2 million impact on the area economy (J. Forbes, Ontario Trap Rock, personal communication, 2005).

Gilbertson Enterprises Quarry

Gilbertson Enterprises (map reference B, Figure 1) of St. Joseph Island operates a quarry east of Highway 548 and south of Highway 17 in Tarbutt Additional Township. The quarried rock is a reddish pink to grey granophyre, a late differentiate typical of Nipissing diabase found in the Bruce Mines area. Several sizes of aggregate and landscaping products are obtained from crushing and screening operations. Production decreased in 2005 to approximately 15 000 tonnes in response to reduced local demand. Deliveries in 2005 were drawn principally from stockpiles and some additional quarrying. Gilbertson supplies equipment and custom crushing services to quarriers throughout northern Ontario (S. Eddy, Gilbertson Enterprises, personal communication, 2005).

Nestorville Quarry

The Nestorville Quarry (map reference C, Figure 1) is located 4 km west of Thessalon, near the town of Nestorville in Lefroy Township. The quarry is operated by Smelter Bay Aggregates. Crushed Nipissing diabase is produced for a number of uses, chiefly rail ballast and quality construction aggregate used in fabricating high-strength concrete. Crushing is accomplished using contracted portable machinery.

Root River Sandstone Quarry

Root River Sandstone Quarry (map reference D, Figure 1), operated by E. Koseba, is located in Tarentorus Township within the city limits of Sault Ste. Marie. The quarry produces an attractive red flagstone from Jacobsville sandstone, which is used mostly for stone facing, flag walkways, retaining walls and landscaping. A new market was established in 2002 for sandstone boulders, with shipments to southern Ontario totalling 110 tonnes. Production of flagstone in 2005 was 60 tonnes (E. Kosiba, Root River Sandstone Quarry, personal communication, 2005).

LaFarge Material and Construction

LaFarge quarry commenced operation in 1999 within the city of Sault Ste. Marie (map reference E, Figure 1). The quarry produces 10 000 tonnes of bedrock aggregate, derived from granite gneiss, used primarily for aggregate and landscaping purposes (J. Nelles, LaFarge Material and Construction, personal communication 2005).

Table 1. Exploration activity in the Sault Ste. Marie District in 2005 (keyed to Figure 1).

Abbreviations

Au	Gold	KIM	Kimberlite indicator mineral sampling
BM	Base metals	OPAP	Ontario Prospectors Assistance Program
Cu	Copper	Pb	Lead
Dia	Diamond	PGE	Platinum group element(s)
IOCG	Iron oxide-copper-gold	REE	Rare earth element(s)

No.	Company/Individual (Occurrence Name) or Property	Township/Area (Commodity)	Exploration Activity (Incentive Program)
1	Canada Enerco Corp.	Beange/Bouck/Joubin (U)	Staking Claims
2	CanAlaska Ventures Ltd.	Gaiashk/Joubin (U)	Staking Claims, Map Compilations
3	Carter, S.M./Going G.F.	Aweres/Pennefather (Au, Ag)	Staking Claims, Prospecting, Sampling
4	Cole, S.N.	Bolger (U)	Staking Claims, Prospecting
5	Darien Resources Inc.	Long/Striker (Trap Rock)	Prospecting, Geological Mapping
6	Dumoulin, G.L.	Moggy (Au)	Prospecting, Staking Claims
7	Eastmain Resources Inc.	Plummer Additional (Cu, Au)	Staking Claims, Prospecting
8	Ellwood Robinson Ltd.	Aweres (Bedrock Aggregate)	Staking Claims, Prospecting
9	Fox Creek Investments Ltd.	Moggy (Cu, Au)	Staking Claims, Prospecting
10	Gold Insight Resources Ltd.	Galbraith (Au)	Staking Claims, Prospecting
11	Hoback, K.H.	Gould (IOCG)	Staking Claims, Prospecting
12	Idziak, B.R.	Parkinson/Gladstone/Wells (Cu)	Staking Claims, Prospecting
13	Julien, P.E.	Dagle	Staking Claims, Prospecting
14	Laviolette, R.J.	Moggy (Au, Cu)	Staking Claims, Prospecting
15	Lucuik, G., Ralph, J.G.	Gould (IOCG)	Staking Claims, Prospecting

No.	Company/Individual (Occurrence Name) or Property	Township/Area (Commodity)	Exploration Activity (Incentive Program)
16	MacDonald, B. J.	Olsen	Staking Claims, Prospecting
17	Nikos Exploration Ltd.	Ryan (IOCG)	Geochem, Geological Mapping, Prospecting, Sampling, Diamond Drilling, Line Cutting, Magnetometer, Gravity Surveys, Electromagnetic Surveys
		Aweres (IOCG)	Geochem, Sampling, Mapping, Line Cutting, Ground Magnetometer, Electromagmatic Surveys, Gravity Surveys
18	Noront Resources Ltd.	Raimbault (Cu, Ni, Zn)	Staking Claims, Prospecting
19	Norwin Geological Ltd.	Deagle/Proctor	Staking Claims, Prospecting
20	O'Connor, T.A.	Kincaid/Ryan (Decorative Stone)	Prospecting, Geological Mapping
21	Pele Mountain Resources Inc.	Gunterman/Joubin (U)	Prospecting, Staking Claims
22	Pelky, R.J.	Lewis (Au)	Trenching, Stripping, Sampling
23	Rae, J.A.	Vankoughnet	Staking Claims, Prospecting
24	Ralph, J.G.	Jessiman (Au)	Staking Claims, Prospecting
25	Salo, J.G.	Gladstone (Cu)	Staking Claims, Prospecting
26	Salo, L.J.	Parkinson/Wells (Cu)	Staking Claims, Prospecting
27	Shelley, D.I	Kincaid (Au, Cu)	Staking Claims, Prospecting
28	Sprague, D.C.	Hembruff (Au, Cu)	Staking Claims, Prospecting
29	Terex Resources Ltd.	Joubin (U, PGE, Ni, Cu)	Airborne Electromagnetic Survey, Staking Claims
30	Tortosa D.	Kincaid (Cu, Au)	Geochemical Survey
31	Vance, J., Ward, M.E.	Shedden (Silica)	Staking Claims, Prospecting
32	White, M. E.	Olsen	Staking Claims, Prospecting

EXPLORATION ACTIVITY

During 2005, approximately 875 claim units were staked in the Sault Ste. Marie District, for the most part targeting uranium in the Elliot Lake area. Cancelled claims during the year totalled 788 claim units. Many of these claims were staked by Southernera Diamonds Inc. for diamonds in the Ranger Lake–Seabrooke Lake–Rocky Island Lake areas. No assessment work was filed on these claims. There is a total of 2584 active claims in the District. New staking during the year is shown in Figure 1 and ground that has come open during the year is shown in Figure 1B.

A summary of exploration activity is reported in Table 1. Locations for the activities are shown on Figure 1.

A total of 5 companies and individuals contributed approximately $1.3 million to exploration expenditures in the Sault Ste. Marie District during 2005. Nikos Exploration Ltd. explored for IOCG (iron oxide-copper-gold) mineralization, NDT Ventures Ltd. for gold mineralization and Terex Resources Inc. for uranium. Both Nikos and Terex conducted diamond-drilling programs in Ryan and Joubin townships, respectively.

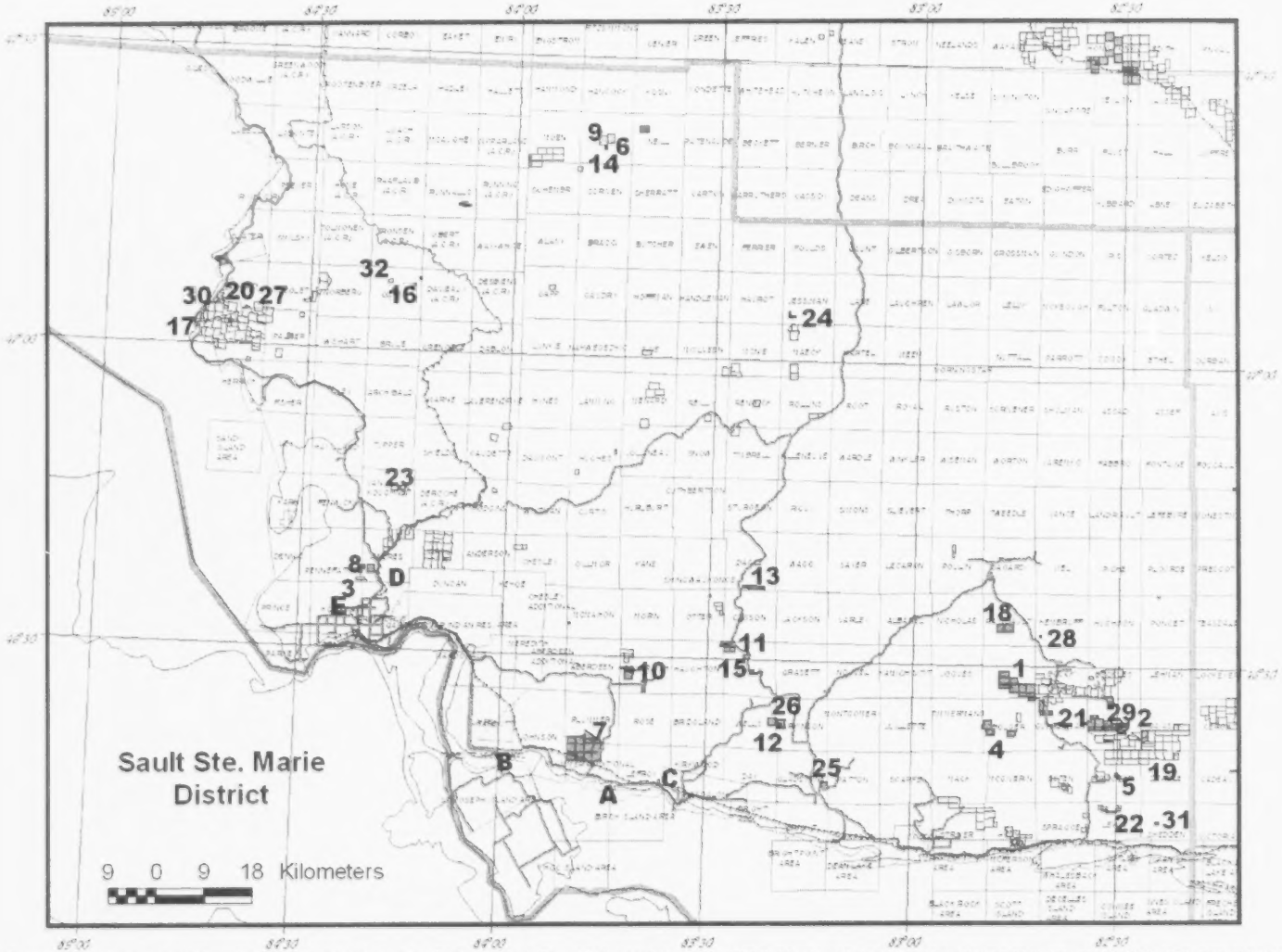

Figure 1: Exploration activity (keyed to Table 1) and staking in the Sault Ste. Marie District between January 13, 2005 (light coloured claims) and new staking as of January 16, 2006 (dark coloured claims). Quarry locations are represented by the letters on the map.

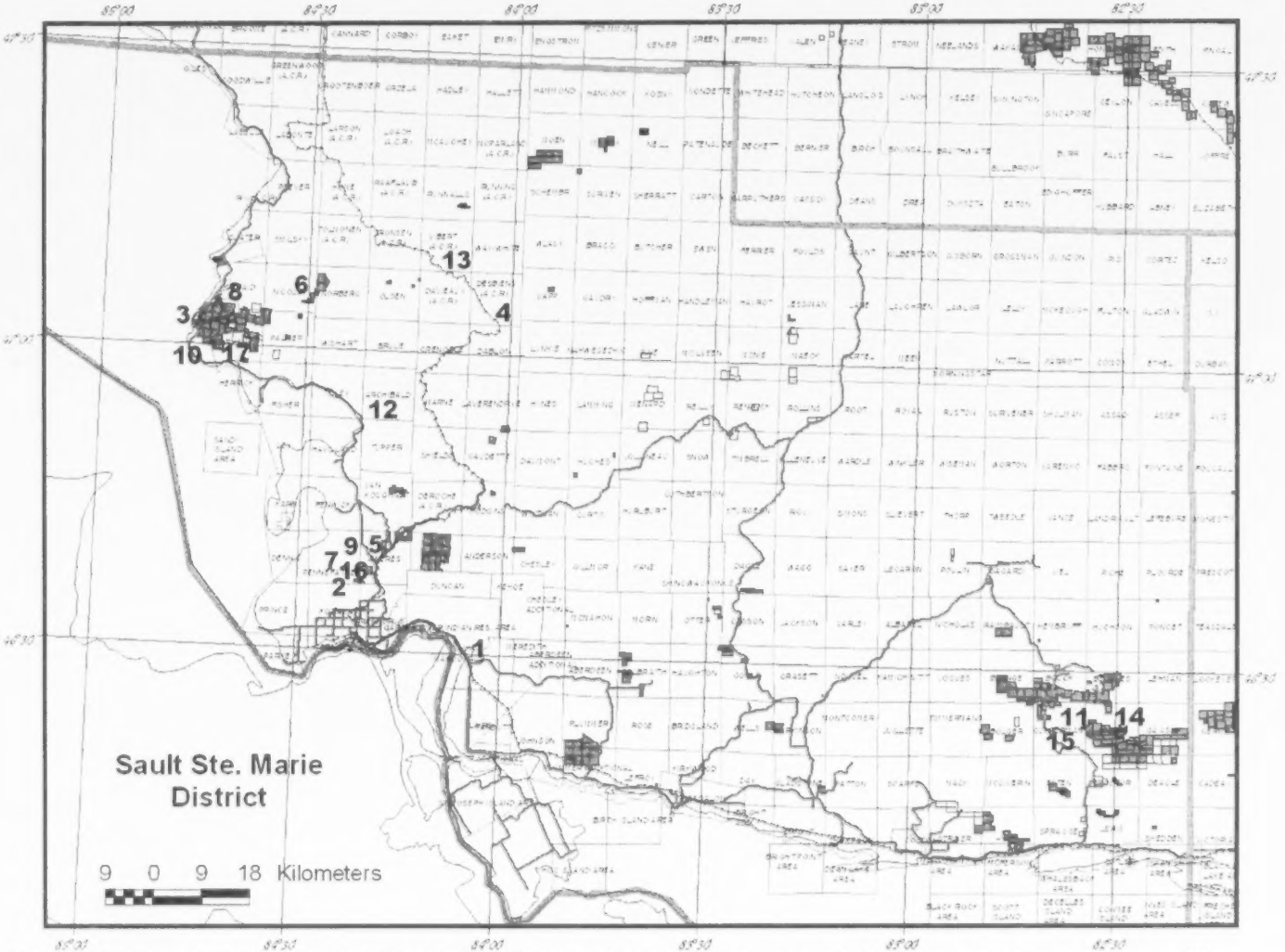

Figure 1B. Staking activity showing claims that came open (light coloured claims) in the Sault Ste. Marie District between January 13, 2005 and claims currently active as of January 16, 2006 (dark coloured claims). Includes Property visits keyed to Table 3.

Nikos Explorations Ltd. – Copper Precious Metals Mineralization at the Coppercorp and Bellvue Properties

COPPERCORP PROPERTY

The Coppercorp property covers an area of 32 square kilometres and includes the past-producing Coppercorp mine that produced 24 million lbs of copper, 2000 ounces of gold and 240 000 ounces of silver from copper-rich quartz-calcite veins and vein breccias between 1965 and 1972. Over 1 million tonnes of ore at an average grade of 1.16% copper, along with gold and silver credits, were mined. Following mine closure in 1972, very little exploration was carried out until Amerigo Resources Ltd. optioned the property in late 2002. Nikos Explorations Ltd. currently holds a 100% undivided interest free of underlying royalties in 15 of 38 claims comprising 35% of the surface area of the property. The remaining claims are covered by an option agreement, whereby Nikos may acquire a 100% interest from the Batchewana group of prospectors. (Nikos Explorations Ltd, Management Discussion and Analysis, For the Year Ended September 30, 2005, available at SEDAR Home Page .)

During the year, Nikos Explorations Ltd. extended the Silver Creek South grid by 1 km to the southeast through the Beaver Pond area. Geological mapping, sampling, an induced polarization (IP/resistivity) survey and a magnetic survey were carried out over the grid. A strong chargeability anomaly was delineated over the 1 km length of the grid. The anomaly trends northwest, subparallel to the regional stratigraphy and remains open to the southeast. This anomaly appears to be an extension of a 500 m long chargeability anomaly that is coincident with a copper Mobile Metal Ion (MMI) anomaly on the adjacent Silver Creek South grid. (Nikos Explorations Ltd, Management Discussion and Analysis, For the Year Ended September 30, 2005, available at SEDAR Home Page .)

This year the Coppercorp property was diamond-drill tested for the first time in 30 years. Nikos Explorations Ltd. carried out 3 separate diamond-drilling programs (23 holes for a total 3728 m) to test anomalies and showings that occur along the "Mine Trend Lineament, a northwest-trending airborne magnetic anomaly along which several copper occurrences are located. The magnetic anomaly is approximately 5 km long and trends subparallel to the regional stratigraphy. Surface rock sampling along this trend had resulted in 22 samples grading more than 1% copper, and up to 5.36 g/t gold and 142 g/t gold. (Nikos Explorations Ltd. Web site, www.nikosexplorations.com/projects/coppercorp.)

Induced polarization surveys over a 2.2 km portion of the Mine Trend resulted in several chargeability anomalies trending subparallel to the northwest-trending stratigraphy. The longest anomaly extends over 1600 m, with minor fault offsets, and is coincident with a MMI copper in-soil anomaly for over 600 m. (Nikos Explorations Ltd. Web site, www.nikosexplorations.com/projects/coppercorp).

These anomalies were tested by a six-hole, 1000 m drilling program during April 2005. Significant chalcocite mineralization was encountered in Hole CP-05-05, which assayed 1.62% Cu and 5.3g/t silver over a true width of 17.8 m, that included 9.49% Cu over 1.85 m. High-grade copper mineralization with significant silver and gold was intersected in diamond-drill hole CP-05-03, which assayed 11.96% Cu, 101 g/t silver and 1.12 g/t gold over 1.18 m. (*Nikos Explorations Ltd., press release*, June 8, 2005.)

In September the company announced results from the first 4 holes of a 1927 m, eleven-hole, second phase diamond-drilling program. Highlights of the results received to date include values up to 3.04% Cu over 0.74 m in hole CP-05-07, and 0.2% Cu and 0.5 g/t silver over 31.7 m including 1.03% Cu and 1.8 g/t silver over 1.43 m in hole CP-05-08. (*Nikos Explorations Ltd., press release*, September 30, 2005.)

In January 2006 Nikos announced the results of the six-hole, 801 m, phase 3 diamond-drilling program carried out in December on the Coppercorp property. The program was designed to follow up on the significant results of drilling earlier in the year, as well as to test new targets elsewhere on the property. Highlights include a 74.65 m intersection (54 m true width) grading 0.34% copper and 2 g/t silver in hole CP-05-20 and 3.7 m (3.42 m true width) grading 0.96% copper and 7.9 g/t silver in hole CP-05-18. *(Nikos Explorations Ltd., press release*, January 10, 2006.)

Observations by geologists from drill core and outcrop suggest that copper mineralization occurs as chalcocite and minor native copper and bornite associated with quartz-calcite veins and vein breccia. Chalcocite and native copper also occur as veinlets and disseminations in basalt and conglomerate. Mineralization exhibits both structural and stratigraphic control, being strongest in areas of well-fractured basalt, close to contacts with overlying conglomerate. Epidote and carbonate are the most abundant alteration minerals in the basalt and may be locally pervasive. Specular hematite occurs as disseminated grains and rare veinlets but may also be locally pervasive. Potassium feldspar and chlorite occur predominantly as amygdules in the basalt. (*Nikos Explorations Ltd., press release*, September 30, 2005.)

The author has also observed an occasional spatial association between felsite dikes and the presence of copper mineralization, particularly along contact margins of the dikes.

The "Mine Trend Lineament" is one of 3 targets that occur on the Coppercorp property. Other targets include the Regional Magnetic High anomaly and the Upper Gimlet Magnetic High anomaly. The Regional Magnetic High anomaly is a 3 by 3 km airborne magnetic anomaly with a coincident gravity anomaly, prospective for bulk tonnage iron oxide-copper-gold style mineralization. This anomaly was described by Hailstone in Hailstone, Atkinson and Farrow (2001). The Upper Gimlet Magnetic High anomaly is an unexplored airborne magnetic high that occurs in Archean metavolcanic rocks on the eastern edge of the property. The target at the Upper Gimlet is a mineralized intrusive porphyry or breccia pipe. (Nikos Explorations Ltd, Management Discussion and Analysis, For the Year Ended September 30, 2005, available at SEDAR Home Page)

In the fall, line cutting, magnetic and gravity surveys, as well as mapping and sampling, were carried out on the Regional Magnetic High anomaly and mapping and prospecting was carried out on the Upper Gimlet Magnetic High anomaly. (Nikos Explorations Ltd, Management Discussion and Analysis, For the Year Ended September 30, 2005, available at www.SEDAR.com)

Results of the gravity survey indicate 4 anomalies of 0.45 to 0.5 mGal in the central and west portions of the grid and a weaker 0.2 mGal anomaly in the southern portion of the grid. The stronger anomalies lie immediately west of a northwest-trending area of high magnetic intensity. Mapping in the area to the east of a 0.45 mGal gravity anomaly found copper mineralization in the form of chalcocite and malachite present as veins and amygdules in amygdaloidal basalt. Samples of the mineralization assayed up to 5.4% Cu. (*Nikos Explorations Ltd., press release*, December 15, 2005.)

Results to date indicate the potential for structurally controlled copper ± silver ± gold mineralization along the Mine Trend lineament over the extent of the Coppercorp property. (Nikos Explorations Ltd website, www.nikosexplorations.com/projects/coppercorp .)

Nikos is also exploring the regional magnetic high and associated gravity anomaly that occurs to the east of (and stratigraphically below) the Mine Trend mineralization. Company geologists believe that these anomalies may overlie intrusion-related mineralization of which the vein-related mineralization is a near surface expression. A bulk tonnage deposit of the iron oxide-copper-gold type is the target in this area and surface work continues to assess the potential. (Nikos Explorations Ltd website, www.nikosexplorations.com/projects/coppercorp.)

BELLVUE PROPERTY

The Bellevue Property lies immediately east of the Island Copper property, and is 100% owned by Nikos. Geological mapping and rock and soil sampling was carried out during the year to follow up on anomalous stream sediment and rock samples from previous work. The claims were staked to cover a regional airborne magnetic anomaly. The property is underlain by Paleoproterozoic Huronian mafic volcanic and sedimentary rocks that are in fault contact with Archean-aged granite and gneiss in the western portion of the property. Results of rock sampling show copper values up to 498 ppm with associated nickel (1054 ppm), chrome (1150 ppm) and cobalt (268 ppm) values. Soil samples collected for Mobile Metal Ion (MMI) processing returned values ranging from 5 to 2229 ppb nickel, from 10 to 3142 ppb copper and from <5 to 509 ppb cobalt. (Nikos Explorations Ltd, Management Discussion and Analysis, For the Year Ended September 30, 2005, available at SEDAR Home Page)

Results of exploration on the property to date have outlined a geochemically anomalous area approximately 1 km by 700 m in the western portion of the property. Anomalous copper, nickel, chromium and cobalt values in rock and stream sediment samples taken from this area, together with copper, nickel and cobalt anomalies occurring in soil samples, suggest that the property is prospective for magmatic sulphide nickel-copper mineralization. (Nikos Explorations Ltd, Management Discussion and Analysis, For the Year Ended September 30, 2005, available at SEDAR Home Page)

Terex Resources Inc. Uranium Diamond-Drill Program in Joubin Township

Terex Resources Inc. carried out a two-hole (280 m) diamond-drilling program on their Platina claims in Joubin Township to check for the presence of unconformity-hosted uranium. The Pardee uranium horizon is hosted by Huronian quartz pebble conglomerates of the Matinenda Formation, and a portion of this horizon extends onto the Platina claims.

From assessment work filed by Terex the best intersection encountered was 777 ppm U (0.091% U_3O_8) over 0.5 m between 91.5 and 92 m in hole P-05-01. Interestingly this intersection also assayed 37 ppb Au. This is slightly anomalous for gold mineralization.

LAND USE PLANNING ACTIVITY

During the year staff reviewed, produced maps and commented on 3 Crown Land withdrawals and one Consent to Subdivide in the District. Staff also reviewed, produced maps and commented on proposed June 1st openings.

Staff also reviewed and commented on 1:250 000 geology compilation base maps for the district that will be used for land use planning purposes.

SAULT STE. MARIE DISTRICT STAFF ACTIVITIES

The Sault Ste Marie District Geologist Office is staffed by M. Hailstone, P.Geo, District Geologist, and A. Pace District Support Geologist. Ms. N. Maville, worked as an Experience student for the summer months of June through August, providing technical and administrative assistance to the office. Notably, Ms. Maville compiled spreadsheets indexing thin sections at the Drill Core Library, as well as all files in the office including all mine plans.

The office received 425 visitors and responded to 2273 telephone calls during the year. Drill core storage facility information was requested by 38 clients and the facility had 7 visitors. A total of 2529 e-mails were received and 1705 e-mails sent by office staff. Assessment files and publications received in the Sault Ste. Marie office in 2005 are listed in Tables 2 and 4, respectively.

Staff of the Sault Ste. Marie District Geologist Office completed 17 property visits during the year (Table 3). Two advertised field trips were offered in coordination with the Sault and District Prospectors Association (SDPA) in June and October, focusing on the geology of the Island Lake Copper prospect and vicinity and the geology of uranium mineralization in the Elliot Lake area. A third field trip on the geology and mineralization of uranium deposits in the Elliot Lake area was also presented at the end of September to industry representatives with claims in the Elliot Lake area.

M. Hailstone attended the Northeast Ontario Regional Mines and Minerals Symposium in Timmins in April and the Ontario Prospectors Association, Ontario Geoscience and Exploration Symposium in Toronto in December. Staff in the Sault Ste. Marie District Geologist Office prepared a handout entitled "Northeast Ontario Exploration Highlights 2005" and contributed to a commodities handout for uranium. These brochures are distributed at several events attended by MNDM staff. In September, M. Hailstone and A. Pace participated in the annual Resident Geologists annual meeting and field trip in Sudbury.

A. Pace commenced a study of the felsic rocks in the Keweenawan-age Mamainse Point Formation. A description of this study is found within the body of this report.

Several days were spent by Sault Ste. Marie District Geologist Office staff preparing outcrops for field trip stops in the Huronian Supergroup and Mamainse Point Formation rocks for the Institute on Lake Superior Geology (ILSG) meeting to be held in Sault Ste. Marie in May 2006.

Both A. Pace and M. Hailstone participated in 1 day of training for the NRVIS MDIR in Timmins in June.

Special Project

A STUDY OF KEWEENAWAN FELSIC ROCKS

Staff of the Sault Ste. Marie District Geologist Office have initiated a study on Keweenawan-aged felsic rocks located in Ryan and Kincaid townships underlain by rocks of the Mamainse Point Formation, as well as parts of Aweres and Archibald townships north of Sault Ste. Marie. Staff collected 25 samples (Figure 2) of hypabyssal felsic rocks that have been identified as being predominantly intrusive and subvolcanic in nature. The 3 main rock types found are quartz porphyry, felsite intrusive rocks and flow-banded rhyolite (Giblin 1969; Annells 1973).

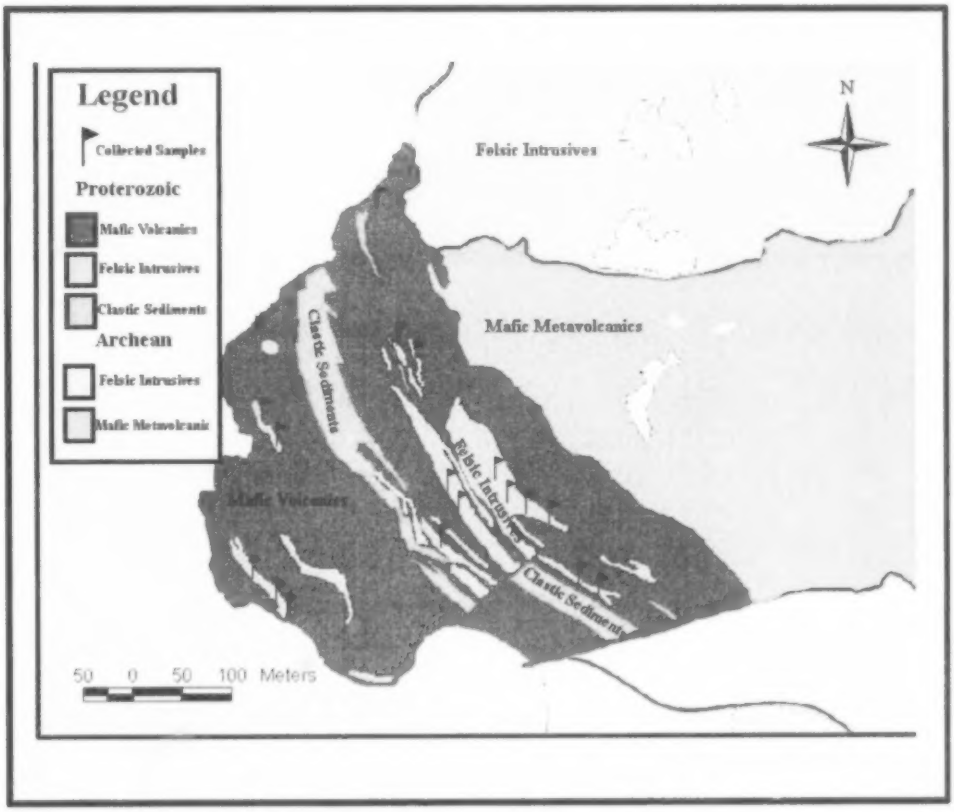

Figure 2. Locations of sample sites in the Mamainse Point Formation, Ryan and Kincaid townships (*after* Giblin 1973; Richards 1985). (*Modified by* A. Pace.)

A. Pace commenced a study of the felsic rocks in the Keweenawan-age Mamainse Point Formation. A description of this study is found within the body of this report.

Several days were spent by Sault Ste. Marie District Geologist Office staff preparing outcrops for field trip stops in the Huronian Supergroup and Mamainse Point Formation rocks for the Institute on Lake Superior Geology (IESG) meeting to be held in Sault Ste. Marie in May 2006.

Both A. Pace and M. Hailstone participated in 1 day of training for the NRVIS MDRI in Timmins in June.

Special Project

A STUDY OF KEWEENAWAN FELSIC ROCKS

Staff of the Sault Ste. Marie District Geologist Office have initiated a study on Keweenawan-aged felsic rocks located in Ryan and Kincaid townships underlain by rocks of the Mamainse Point Formation, as well as parts of Aweres and Archibald townships north of Sault Ste. Marie. Staff collected 25 samples (Figure 2) of hydrothermal felsic rocks that have been identified as being predominantly intrusive and subvolcanic in nature. The 3 main rock types found are quartz porphyry, felsite intrusive rocks and flow-banded rhyolite (Giblin 1969; Annells 1973).

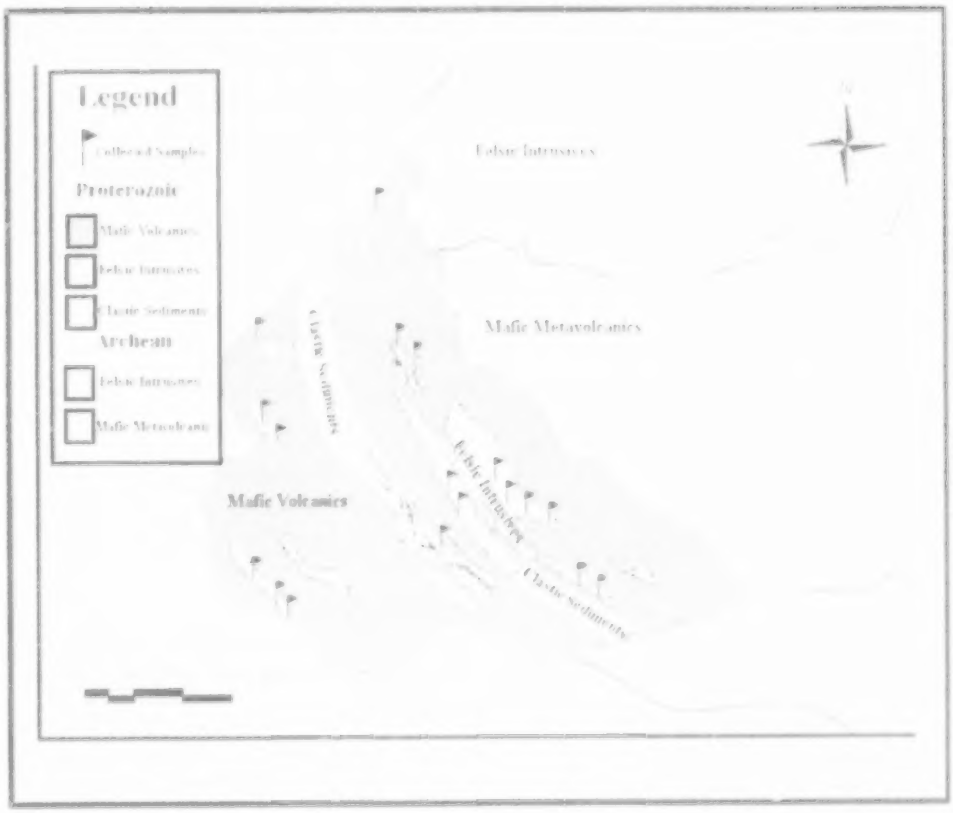

Figure 2. Locations of sample sites in the Mamainse Point Formation, Ryan and Kincaid townships (after Giblin 1969; Annells 1973; Hailstone 1985). (Digitized by A. Pace.)

The purpose of the study was to collect and analyze a variety of felsic intrusive and extrusive rocks associated with the Keweenawan mafic volcanic rocks in the area. The use of major oxides, minor elements and REE (Rare Earth Element) geochemistry along with thin section descriptions will be used to determine composition and tectonic setting. The geochemistry should also provide a possible link to the iron-oxide-copper-gold (IOCG) potential currently being explored for by Nikos Explorations Ltd.

BACKGROUND GEOLOGY

The Mamainse Point Formation of volcanic rocks is located on the eastern edge of the Mid-Continental Rift (MCR), which underlies what is now Lake Superior. The MCR was active during the Mid-Proterozoic, Keweenawan period (1100-1200 Ma). The Mamainse Point Formation consists of about 300 mafic volcanic flows that young from north to south, and are interbedded with coarse terrigenous sedimentary rocks (Lightfoot et al. 1999). The most significant horizon of the sedimentary sequence is the Great Conglomerate which separates the mafic volcanic rocks into Lower and Upper Divisions. In many places, the flows are disrupted by small rhyolite and felsite intrusive and extrusive centers (Annells 1973). These particular flows strike northwest and dip 30° to 55° W to WSW, and are cut by northwest-trending faults. The Keweenawan volcanic rocks of the Mamainse Point Formation unconformably overlie Archean metavolcanic and granitic rocks.

THE FELSIC ROCKS

Keweenawan-aged rocks of the Mamainse Point Formation located on the eastern edge of the Mid-Continental Rift (MCR) have economic significance due to the widespread presence of copper mineralization. Mining has occurred periodically since the middle 1800s, most recently at the Coppercorp and Tribag Mines, which were in production from 1965 to 1972.

The felsic rocks have been identified as a possible source for the mineralization in the area, as the felsite intrusions are considered to have been emplaced contemporaneously with fault movement, brecciation and sulphide deposition (Heslop 1970). The structurally controlled Coppercorp veins and Tribag breccias illustrate that the fault movements developed into zones of weakness allowing felsic units to intrude. The felsite rocks were likely generated at depth and intruded later than the mafic volcanism.

Results of the sampling were pending at the time of writing.

Table 2. Assessment files received in the Sault Ste. Marie District Geologist Office in 2005

Abbreviations

AEM	Airborne electromagnetic survey
AM	Airborne magnetic survey
ARA	Airborne radiometric survey
Beep	Beep Mat survey
Bulk	Bulk sampling
DD	Diamond drilling
DDH	Diamond drill hole(s)
DGP	Down-hole geophysics
GC	Geochemical survey
GEM	Ground electromagnetic survey
GL	Geological survey
GM	Ground magnetic survey
GRA	Ground radiometric survey
Grav	Gravity survey
HLEM	Horizontal loop electromagnetic survey
HM	Heavy mineral sampling
IM	Industrial mineral testing and marketing
IP	Induced polarization survey
Lc	Linecutting
Met	Metallurgical testing
OD	Overburden drilling
ODH	Overburden drill hole(s)
OMIP	Ontario Mineral Incentive Program
OPAP	Ontario Prospectors Assistance Program
PEM	Pulse electromagnetic survey
PGM	Platinum group metals
Pr	Prospecting
RES	Resistivity survey
Samp	Sampling (other than bulk)
Seismic	Seismic survey
SP	Self-potential survey
Str	Stripping
Tr	Trenching
UG	Underground exploration/development
VLEM	Vertical loop electromagnetic survey
VLFEM	Very low frequency electromagnetic survey

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Aberdeen	Algoma Ore Properties, Limited	1943	GL	Donated	SSMP-Aberdeen-12
Albanel	A.H. Clark	1966	GL	Donated	SSMP-Albanel-05
Aweres	Nikos Exploration Ltd.	2005	AM, GC	2.2919	SSMP-Aweres-13
Aweres/ VanKoughnet	Nikos Exploration Ltd.	2005	GL, Samp, GC,	2.29504	SSMP-Aweres-14
Bouck	Denison Mines Limited	1965, 1972, 1978, 1974, 1980, 1982	mine plans, DDH, GL	Donated	General-Bouck-0051
Bouck	Gemico Mines Ltd.	1977	GL	Donated	SSMP-Bouck-08
Cobden	Bruce Mines Property	1954	GL	Donated	SSMP-Cobden-0020
Dablon	Kristina Copper Mines Ltd.	1954	DDH	Donated	SSMP-Dablon-02
Deroche	A.C.R-Newconex Investigations	1964	AEM, GEM	Donated	SSMP-Deroche-16
Esten	Gitennes Exploration Inc.	2005	IP	2.29199	SSMP-Esten-0016
Hilton	Superior Northwest	1979	GL	Donated	Hilton-0011-A2
Joubin	Terex Resources Limited	2003	AEM	2.29276	SSMP-Joubin-16
Joubin	Terex Resources Limited	2005	AM	2.2985	SSMP-Joubin-17
Kincaid	Daniel I. Shelly	2003	Pr, Beep, VLFEM	2.28491	SSMP-Kincaid-19
Kincaid	Delio Tortosa	2005	GC	2.30641	SSMP-Kincaid-21
Kincaid	Falconbridge Nickel Mine Ltd.	1949	DDH	Donated	SSMP-Kincaid-22

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Kincaid/Ryan	Thomas A. O'Connor	2005	GL, Pr	2.29926	SSMP-Kincaid-20
Lewis	Robert Joseph Pelky	2005	DGP, Tr, Str, Samp	2.28847	Lewis SSMP-05
Long	Darien Resources Inc.	2005	Pr, GL,	2.29551	SSMP-Long-09
Long	Darien Resources Inc.	2005	Pr, GL	2.29552	SSMP-Long-10
Long	Darien Resources Inc.	2005	Pr, GL	2.29571	SSMP-Long-11
Long	Darien Resources Inc.	2005	Pr, GL	2.2956	SSMP-Long-12
Long	Darien Resources Inc.	2005	Pr, GL	2.29561	SSMP-Long-13
MacDonald	Iron Prospect	1952	GL	Donated	SSMP-Macdonald-03
Moen	NDT Ventures	2005	AM	2.29058	SSMP-Moen-07
Moen	NDT Ventures Ltd.	2005	Tr, GL, Samp	2.296	SSMP-Moen-08
Montgomery	Destorada Mines Ltd.	1952	GL	Donated	SSMP-Montgomery-0024
Nicholas	Cooke-Burton Group	1952	GL	Donated	SSMP-Nicholas-05
Plummer	Plummer Township Gold Property	1968	GC	Donated	SSMP-Plummer-10
Poulin	G.W. MacLeod	1942	Pr, GC	Donated	Poulin-0014
Proctor	Grant Forest Products Corp.	2005	GL and AM, Samp	2.29019	SSMP-Proctor-01
Raimbault	Cyprus Exploration Corporation Ltd.	1968	GL	Donated	SSMP-Raimbault-08
Running	Hussey-Drury	1909	GL	Donated	SSMP-Running-04
Running	Golden Ashley Exploration	1966	GL	Donated	SSMP-Running-05
Ryan	Nikos Exploration Ltd.	2005	DD	2.30167	SSMP-Ryan-18
Ryan	Jacques Renault	1963	GL	Donated	SSMP-Ryan-19
Ryan	Cliffs of Canada	1962	GL	Donated	SSMP-Ryan-20
Ryan	Coppercorp Ltd.	1962	DDH, GL	Donated	SSMP-Ryan-21
Ryan	Trott Copper Property	1953	GL	Donated	SSMP-Ryan-22
Ryan	Mamainse Copper Project	1952	GL	Donated	SSMP-Ryan-23
Schembri	Pillow Lake Copper Property	1966	GL	Donated	SSMP-Schembri-03
Shields, Hodgin, Gaudette, Deroche	Sir Stopford Brunton	1921	GL	Donated	SSMP-Deroche-15
Shields, Tupper	Belleterre Quebec Mines	1966	AEM	Donated	SSMP-Shields-Tupper-02
Varley	West Land Iron Mine	1944	GL	Donated	SSMP-Varley-07

Table 3. Property visits completed by the Sault Ste. Marie District Geologist Office in 2005 (keyed to Figure 1B).

Number (keyed to Figure 1B)	Property/Occurrence	Location
1	Outcrops of Lorraine and Jacobsville unconformity.	MacDonald Township
2	Examining outcrops on quad track trails leading north from Allard Lake in vicinity of vertical gradient gravity high within Gros Cap gneiss.	Penefather and Korah townships
3	Coppercorp Project – examining core from Nikos Explorations Ltd. diamond-drill program.	Ryan Township
4	Examining outcrop along new road access through metavolcanic rocks within south side of Eastern Domain of Batchewana Greenstone belt.	Davieaux and Desbien townships
5	Outcropping of Aweres Formation in vicinity of Upper Island and Trout Lake lakes along access roads.	Aweres Township
6	Tour of the Tribag Mine site with MNDM mines rehabilitation inspector and MOE representative.	Nicolet and Noeberg Township
7	Examining outcrops (quad track trails) of Gros Cap gneiss and Jacobsville sandstone along 305 m contour line.	Pennefather Township
8	Checking outcrop exposures along new logging road within and east of the Great Conglomerate – east side of Montreal Mining location.	Kincaid Township
9	Checking outcrop exposures along upgraded Old Goulais River road.	Pennefather Township
10	Montreal Mining location east side on Gimlet Creek road.	Ryan Township
11	Outcrop exposures of pyritic - uraniferous quartz-pebble conglomerate exposed at surface. Planning for field trip in the fall. Elliot Lake, north and south limb of Quirke Syncline also the Pronto Mine site.	Gunterman, Buckles, Joubin and Long townships
12	Outcrops of felsic Keweenawan rocks of the Mamainse Point Formation and sample for geochemical analysis.	Archibald Township
13	Outcrop along the south side of Wart and Mongoose lakes.	Vibert Township
14	Preparing for 2 field trips in the Elliot Lake area: Industry and SDPA field trips.	Gunterman, Buckles, Joubin and Long townships
15	Preparing for ILSG 2006 Huronian field trip. Field trip stops for Sault area and Elliot Lake area outcrops.	Gunterman, Buckles, Joubin, Long, Plummer, Aberdeen, Meridith, Fenwick, Aweres and Deroche townships
16	Outcrop exposures along quad track trail branching west off Old Goulais River road at kilometer 10 and coinciding with east-trending linear feature in Gros Cap gneiss.	Pennefather Township
17	Unconformity between Keewenawan and Archean and new porphyry along new road exposures.	Ryan Township

PROPERTY EXAMINATIONS

Access to New Exposures of the Mongoose Lake Mafic Intrusion

A. Pace and M. Hailstone visited outcrops in the vicinity of Mongoose Lake along the southern and eastern margins of the mafic intrusion. This intrusion was discussed in last year's Report of Activities (Atkinson et al. 2005) along with a map showing the location of roads accessing the area. This map has been revised in this publication (Figure 3).

The mapped extension of the Mongoose Lake intrusion has been described previously by Siragusa (1986). The main body of hornblende gabbro-anorthosite is elongate in shape, trends west-northwest, has a variable width between 213 to 1200 m and is 5.6 km long. The author has observed Proterozoic, feldspar-phyric Matatchewan diabase dikes cutting the intrusion along its south margin on access road #2 (see Figure 3).

Along the south margin of the intrusion, on access road #2, breccias occur with mafic rounded xenoliths up to 1 m in size in a matrix of coarse-grained anorthositic material. No sulphides were observed in exposures at this locality.

The new exposures containing fine magnetic pyrrhotite to 0.5% are located on access road #3 at the branch in the road. Analytical results from samples collected in this area were not available at the time of writing. The sulphides occur in a coarse-grained anorthositic gabbro with calcic plagioclase laths up to 2 cm in size, making up 50 to 60% of the rock. Patches of fine sulphides are exposed in outcrop over a 75 by 50 m area.

RECOMMENDATIONS FOR EXPLORATION

Copper-Nickel-Platinum Group Element, Bedrock Aggregate Hosted by the Mongoose Lake Intrusion

New logging roads leading north along the Chippewa River to Batchewana Station are also currently being established north and south of Mongoose Lake in Vibert Township. Traverses carried out by the author along access roads 1, 2 and 3 in this area during the 2004 and 2005 field season can be found on Figure 3. This road system also provides new exposures of the Mongoose Lake gabbro intrusion. This intrusion should be evaluated for its nickel-copper and PGE potential. Significantly, this intrusion is not far from the railroad at Summit. Some testing should be done to see if bulk sampling of the intrusion would provide a suitable form of dimension stone or traprock.

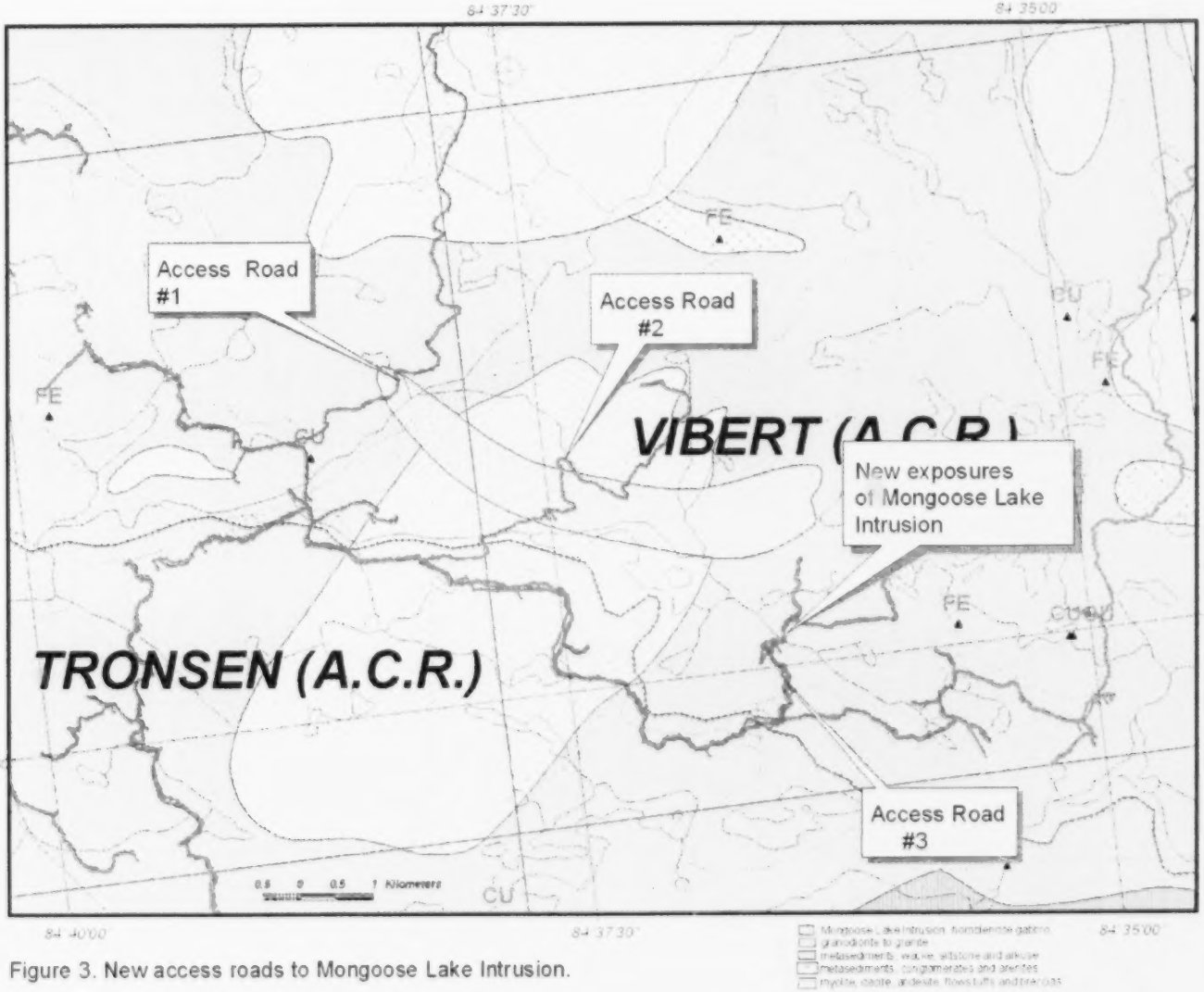

Figure 3. New access roads to Mongoose Lake Intrusion.

Table 4. Compilation of recommendations for exploration made in past years by Resident Geologist Program staff in Sault Ste. Marie (keyed to Figure 4).

Author	Report of Activities (publication year/page)	Recommendations/Township
1. R.J. Rupert	1972, pg. 104	Kabinakagami Lake region, 25 km north of Dubreilville. Mafic to ultramafic intrusives riddle macro breccia zone. Anomalous titanium, chrome and abundant biotite suggest petrographic affinity with kimberlites.
2. R.J. Rupert	1973, pg. 88	NW Viel Tp. Cu prospect associated with NW-trending Nipissing diabase. Glacial till cemented by 1-3" layer of malachite and traced for 1000 feet. Drilling on I.P. anomaly yielded values of 1.7% Cu.
3. R.J. Rupert	1973, pg. 89	Gaudette Tp. Block faulting crosscuts a heavily mineralized NE shear zone. Coarse white quartz lenses conform with the shear and contain patches of molybdenite, pyrite and chalcopyrite. This radioactive structure is favourable for copper, molybdenum and nickel. Rock grabs yield 0.83% Ni and 5.38% Cu. A geochemical survey contain assays high in heavy metals.
4. G. Bennet and E.J. Leahy	1980, pg. 99	Vankoughnet Tp. The argentiferous galena occurrences in the area have a high potential value which increases with silver prices. One particular occurrence is the Prace Mine which encloses a NW striking galena vein, strongly anomalous in silver and low alpha lead used in the electronics industry. The vein is in a shear zone, which for most of its length separates Nipissing gabbro from the laminated argillite of the Gowganda Formation.
5. G. Bennett	1982, pg. 133 and 137.	Hughes Tp. There seems to be a close spatial association between base metal-silver occurrences and dike rocks of Keweenawan age, especially felsite and lamprophyre. This association may be simply structural in that the deposits, namely argentiferous galena, lead, copper and zinc, occupy linear trends of N10°W. The distinctive bright pink to red coloured felsite and dark inclusion-bearing lamprophyre are relatively uncommon and should be considered a plus factor in considering areas for prospecting. Please note the linear trends may not parallel the strike of the individual veins.
6. G. Bennett	1983, pg. 149 and 150.	Aweres Tp. Radioactive quartz-pebble conglomerate found near or at the base of the Thessalon Formation between Sault Ste. Marie and the NE part of the Quirke Lake Syncline contain numerous anomalous gold values of up to 600 ppb. Also In Day Tp, the same stratigraphic position returned assays of 4300 and 320 ppb Au. The magnitude and potential cannot be determined from the few analysis available so far.
7. G. Bennett, E.J. Leahy and K.D. Booth	1985, pg. 218	Davieux Tp. Evidence suggests there is a direct relationship with gold occurrence and primary magnetite presence in lean Iron Formation. Past drilling has returned up to 0.15 oz/ton Au and channel samples averaging 0.137 oz/ton Au along with anomalous geochemical sampling.
8. G. Bennett, E.J. Leahy, K.D. Booth	1985, pg. 227	From Goulais Bay to Elliott Lake, within the Huronian Supergroup, selected outcrops have a variety of colour, textures and exhibit distinct structures. These make an attractive ornamental stone and the integrity and dimension of these outcrops remain to be measured.
9. G. Bennett, E.J. Leahy, J.P. Donald, E. Frey, J.J. Kral, and D.J.J. Tortosa	1986, pg. 253	Vankoughnet Tp. While examining the area for industrial mineral potential the authors noted Black Granite outcrop with the dimension of 10 by 1 by 66 km.
10. G. Bennett, E.J. Leahy, J.P. Donald, E. Frey, J.J. Kral, and D.J.J. Tortosa	1987, pg. 237	Olsen and Southern Tronsen Tp. Rampart Resources and Massive Energy carried out geochemical anomaly surveys, prospecting, mapping and drilling over pyritic iron formation. This structure traced for 5 miles in an E-trending direction. Assays from drilling returned values of 4.1 feet of 0.525 oz/ton Au and 10.1 feet of 0.048 oz/ton Au.
11. G. Bennett, E.J. Leahy, J.P. Donald, E. Frey, J.J. Kral and D.J.J. Tortosa	1987, pg. 244	Prince Tp., Building Stone-Red Granite-Monzonite. Large deposit over 4 km sq. The deposit is homogenous, no deleterious minerals or staining and is good for building or monumental stone. Wells Tp.- Nipissing diabase – black granite is another large deposit which is homogenous and dimensions need to be measured.
12. G. Bennett, E.J. Leahy, J. Walmsley	1992, pg. 223	Hughes Tp. Mineralized breccia zone within the granite gneiss. Shear zone crosscutting consists of diabase fragments, quartz stringers and carbonate. 10-15% mineralization includes sphalerite, pyrite, galena, chalcopyrite and pyrrhotite. Cu values range from 0.05 - 4%, Zn from 1 - 13%, Pb from 1 - 7%, Ag from 1 – 2000 ppm.

Author	Report of Activities (publication year/page)	Recommendations/Township
13. G. Bennett, E.J. Leahy and J. Walmsley	1992, pg. 225	Fenwick Tp. Barite in dolostone associated with stratabound copper occurring at the base of the Gordon Lake Formation. Mineralization includes very fine-grained pyrite and specular hematite. The depositional environment is suitable for base metal concentration.
14. G. Bennett, E.J. Leahy, J. Walmsley and M. Hailstone	1993, pg. 225	Montreal Mining Location: domeykite occurrence within felsite intrusion on Hwy 17, 50 km north of Sault Ste. Marie. The copper arsenide occurs within fractures.
15. G. Bennett, E.J. Leahy, J. Walmsley and M. Hailstone	1993, pg. 230	Batchewana greenstone belt remains a prime area for mineral exploration as well as greenstone belts in Deroche, Shields and Gaudette tps.
16. G. Bennett, M. Hailstone and B. Fremlin	1995, pg. 250 and 251.	Northeast corner of Ryan tp. The Richards/Haugeneder gold occurrence is an example of gold associated with Archean-hosted iron formation within the northern margins of the Batchewana greenstone belt. There are similarities to the Geraldton greenstone belt.
17. G. Bennett, M. Hailstone and B. Fremlin	1995, pg. 251	45 km north of Blind River: the Flack Lake fault has potential for copper mineralization. This fault is thought to be a reverse thrust on the north side of the Huronian supracrustal belt. The basalts in this structure are known to contain anomalous copper mineralization.
18. M. Hailstone and P. Morra	1998, pg. 11	Day Tp: Gold associated with basal pyritic units of the Livingston Creek Formation.

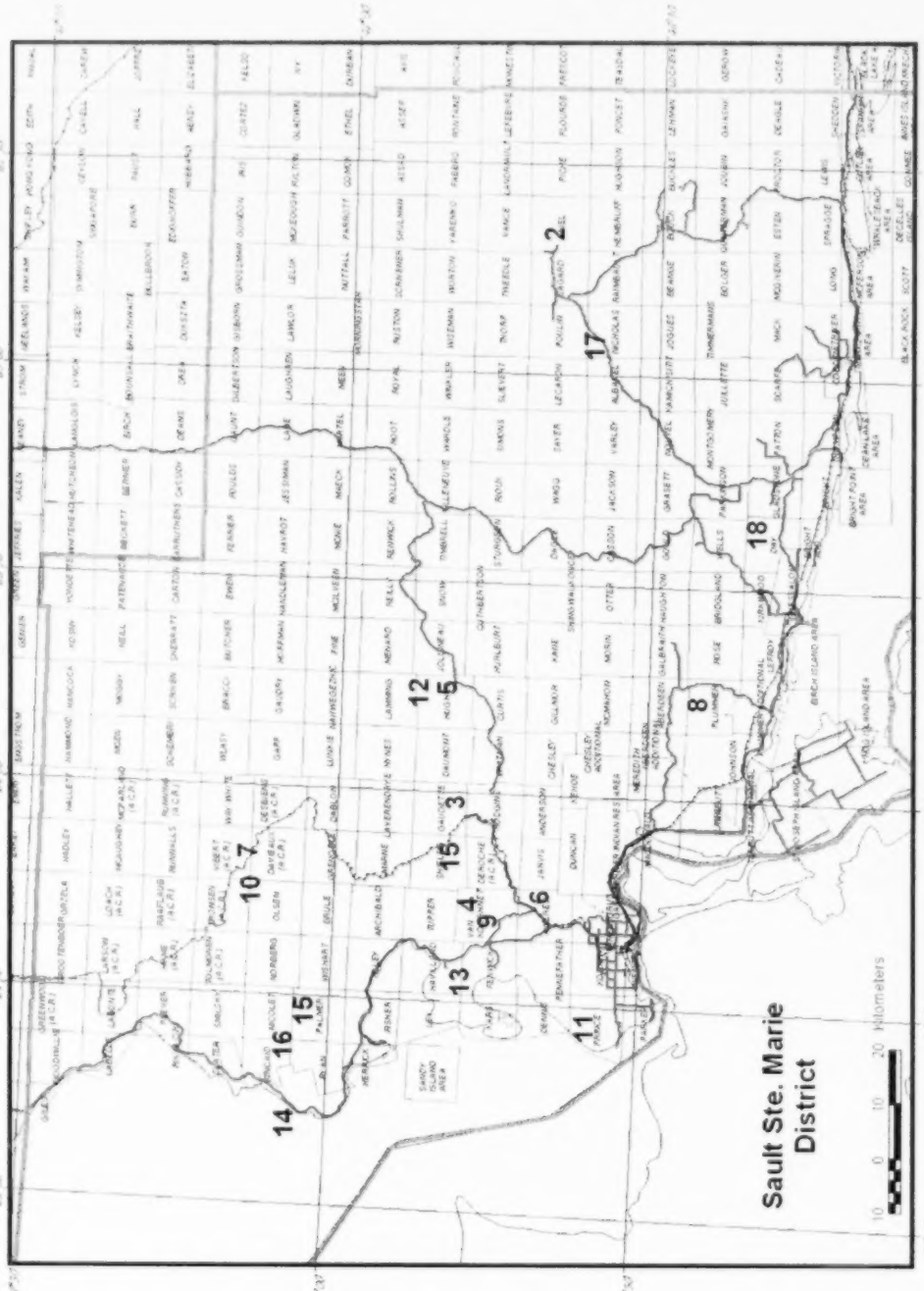

Figure 4: Recommendations for Exploration Locations (Keyed to Table 4)

Table 5. Publications received by the Sault Ste. Marie District Geologist Office in 2005.

Title	Author	Type and Year of Publication
Evidence for geomagnetic reversal asymmetry from U-Pb dating in the Keweenawan Mamainse Point sequence, Ontario, Canada	Manson M.L., Davis D.W.	Department of Geology, Erindale Campus, University of Toronto, 3359 Mississauga Rd., Mississauga, Ontario, 1995
High-MgO lavas from the Keweenawan mid continent rift near Mamainse Point, Ontario	Berg, J.H., Klewin, K.W.	Department of Geology, Northern Illinois University, Dekalb, Illinois, 1988
Temporal changes in the sources of flood basalts: Isotopic and trace element evidence from the 1100 Ma old Keweenawan Mamainse Point Formation, Ontario, Canada	Shirel, S.B., Kenneth, K.W., Berg, J.H., Carlson, R.W.	Department of Terrestrial Magnetism, Carnegie Institution of Washington, Department of Geology, Northern Illinois University, 1994
Re-Os isotopic compositions of Midcontinent rift system picrites: Implications for plume-lithosphere interaction and enriched mantle sources.	Shirey, S.B.	Canadian Journal of Earth Science,v.34, p.489-503, 1997
Rift-wide correlation of 1.1 Ga Midcontinent rift system basalts: Implications for multiple mantle sources during rift development.	Nicholson, S.W., Shirey, S.B., Klaus, S.J., and Green, J.C	Canadian Journal of Earth Science, v.34, p.504-520, 1997
Proterozoic reactivation of the southern Superior Province and its role in the evolution of the Midcontinent rift	Manson, M.L., Halls, H.C.	Canadian Journal of Earth Science, v.34, p.562-575, 1997
Petrology of the Keweenawan Mamainse Point lavas, Ontario, petrogenesis and continental rift evolution	Klewin, K.W., Berg, J.H.	Department of Geology, Northern Illinois University, 1991
Evidence for Paleoproterozoic cap carbonates in North America	Bekker, A., Kaufman, A.J., Karhu, J.A., Eriksson, K.A.	Department of Geological Sciences, Virginia Polytechnic Institute and State University, Department of Earth and Planetary Sciences, Harvard University, Department of Geology, University of Maryland at College Park, Department of Geology, University of Helsinki
Geochemistry and origin of the Yellow Dog Plains Peridotite	Morris, W.J.	Michigan State University, 1977
Summary of Field Work and Other Activities, 2005	Baker, C.L., Debicki, E.J., Kelly, R.I., Ayer, J.A., Easton, R.M., Madon, Z.B.	Ontario Geological Survey, Open File Report, 6172, 2005
Sampling lamprophyre dikes for diamonds: Discover Abitibi Initiative	Grabowski, G.P.G, Wilson, A.C.	Ontario Geological Survey, Open File Report, 6170, 2005
Report of activities, 2004 Resident Geologist Program, Timmins Regional Resident Geologist Report: Timmins and Sault Ste. Marie Districts	Atkinson, B.T., Hailstone, M., Seim, G.Wm., Wilson, A.C., Draper, D.M., Bulman, B.J., Pace, A.	Ontario Geological Survey, Open File Report, 6149, 2005

Table 6. Mineral deposits not being mined in the Sault Ste. Marie District in 2005.

Abbreviations

AF ..... Assessment Files
CMH ..... Canadian Mines Handbook
GR ..... Geological Report
MDC ..... Mineral Deposits Circular [No.15–] [*formerly* Mineral Resources Circular, No.1-14]
MDIR ..... Mineral Deposit Inventory Record
MLS ..... Mining Lands, Sudbury
MR ..... Geological Survey Canada Publication
NM ..... The Northern Miner
OFR ..... Open File Report
PC ..... Personal Communication

Deposit Name/ NTS	Commodity	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
Pater Mine Spragge Tp. 41J/2	Cu, Au, Ag	936 670 T @ 1.8% Cu	Rio Algom Limited	MR 1087	Past Producer 1969-1970
Bar-Fin Mine Thompson Tp. 41J/3	Cu	1906 - 130 foot shaft with 250 feet lateral work	Staked	MR 1087	Past Producer 1906
Bald Dome Prospect Plummer Add. Tp. 41J/5	Cu	680 388 T @ 0.25% Cu		MR 1087	Inactive
Bruce Mines Plummer Add. Tp. 41J/5	Cu, Ag	40 000 T @ 1.8% Cu above 155-foot level		MDC 12	Past Producer 1915-1921
Campbell–Dukes Prospect Plummer Add. Tp. 41J/5	Cu	33 000 T @ 1.2% Cu in 230′ by 8′ by 220′ block		MR 223	Past Producer 1956
Rock Lake Mine Aberdeen Tp. 41J/5	Cu, Ag	1898-1903: 420 foot shaft with 3 levels and 606 lateral development		MDC 12	Past Producer 1901-1903
Havilah Mine – Ophir Mine Galbraith Tp. 41J/5	Au, Ag, Cu	1 main vein, 2 – 150 foot shafts, 1 – 183 foot adit		MDC 12	Past Producer 1892-1922
Steinberg Mine Plummer Add. Tp. 41J/5	Cu	47 000 T @ 1.82% Cu or 124 000 T @ 1.1% Cu (drill indicated)		AF	Past Producer 1906 and 1956
Stobie Mine – Rainbow Mine Johnson Tp. 41J/5	Cu, Ni, Au	9 T of ore shipped from 1 – 160 foot shaft with 20 feet of lateral workings		MDC 12	Past Producer 1899-1901
Bilton Option Patton Tp. 41J/6	Cu	453 593 T @ 1.7% Cu	N/A	MR 1087	Past Producer Pre 1956
Boyea Lake Adit and East Zones Montgomery Tp. 41J/6	Cu	Adit Area - 128 000 T @ 1.95% Cu probable and possible to 200 feet; East Area - 56 500 T @ 2.98% Cu drill indicated to 250 feet	N/A	Sudbury Contact Mines AR 1971	Past Producer Pre-1942
Crownbridge (Cannon) Prospect Kamichisitit Tp. 41J/6	Cu	415 000 T @ 1.8% Cu diluted grade	N/A	MDC 12	Past Producer 1966-1967
Glagoma Mine Gladstone Tp. 41J/6	Cu	1917 2 shafts sunk to 250 feet		MDC 12	Past Producer 1917 and 1962
Goulding Mine Cobden Tp. 41J/6	Cu	1962 816 T @ 1.4% Cu shipped from mine		MDC 12	Past Producer 1962

Deposit Name/ NTS	Commodity	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
North Montgomery-Grand Portage Mine Montgomery Tp. 41J/6	Cu	147 677 T @ 1.7% Cu – Main Zone 40 9000 T @ 1.96% Cu – No 1 Zone 77 063 T @ 3.23% Cu – No 2 Zone 61 688 T @ 1% Cu – West Zone	N/A	MR 1087	Inactive
Milgate (Abbican) Prospect Nouvel Tp. 41J/6	Cu	95 934 T @ 1.08% Cu (drill indicated) A Zone L-600' by W-10' by D-235'		MR 1087	Inactive
Principle Strategic Minerals Prospect Gladstone Tp. 41J/6	Cu	112 300 T @ 1.54% Cu (drill indicated)		NM MDC 12	Inactive
Sheba Prospect Nouvel Tp. 41J/6	Cu	L-1000' by W-3' on surface @ 0.59% Cu	N/A	MDC 12	N/A
Twin Lakes Prospect Esten Tp. 41J/7	Cu	Probable - 76 900 T @ 1.73% Cu over 8.04 feet	N/A	MDC 12	
Bi-Ore Mine Sagard Tp. 41J/10	Cu	13 607 T @ 6% Cu	N/A	MR 1087	Past Producer 1947-1949
Cheney Mine Gould Tp. 41J/11	Cu	39 405 T @ 3.97% Cu (drill indicated)	N/A	MDC 12	Past Producer 1966-1967
Copper Prince Mine Kamichisitit Tp. 41J/11	Cu, Au	45 359 T @ 3% Cu 4 ore shoots near surface		MR 1087	Past Producer 1972
Jardun Mine Jarvis Tp. 41K/9	Pb, Zn, Ag, Cu, Au	49 367 T @ 4.4% Pb, 3.1% Zn, 1.42 oz/T Ag	N/A	MDC 12	Past producer 1954-1957
Kerr Scott Deroche Tp. 41K/9	Pb, Zn, Ag, Au	1859 T of hand-cobbed ore recovered Deposit reserves have not been calculated		MDC 12	Past Producer 1939
Goulais River VanKoughnet Tp. 41K/11	Cu, Ag	250 000 T @ 2.35% Cu, 0.26 oz/T Ag in 3 zones (drill-indicated)	N/A	MR 223	Past Producer 1975 and 1981
Kristina Mine LaVerendrye Tp. 41K/11	Cu	369 350 T @ 1.95% Cu in No 4 and No. 6 shaft zones	N/A	MDC 12 MR 223	Past producer 1903-1907
Prace–Sill Lake Mine VanKoughnet Tp. 41K/16	Pb, Zn, Ag	340 T Pb, Ag concentrate produced Deposit reserves have not been calculated	N/A	PC	Past Producer 1981 and 1985-1987
Caputo–Just Wishart Tp. 41N/1	Cu	475 T @ 11.18 % Cu recovered from 3 zones		MDC 12	Past Producer 1968
Coppercorp Mine Ryan Tp. 41N/2	Cu, Ag, Au	1 360 777 T @ 1.7% Cu in C Zone 362 873 T @ 2.3% Cu in C-2 Zone 589 670 T @ 2.1% Cu in SB Zone 444 520 T @ Cu in Silver Creek Zone	N/A	MR 1087	Past Producer 1964-1972 1 M Tons recovered
Glenrock Palmer Tp. 41N/2	Co, Au, Cu	Several zones – main zone L-250' by W-3.5' (drill indicated)		MR 1087 MDC 12	
Jogran Prospect Ryan Tp. 41N/2	Cu, Mo	L-600' by W- 400' by D-680' @ 0.053% MoS_2, 0.19% Cu (drill indicated)		MDC 12 MR 223	
Mamainse Mine Ryan Tp. 41N/2	Cu	Vein L-1500' by W-13' 3 shafts sunk to depth 60, 280, 1500 feet		MDC 12	Past Producer 1882-1884

Deposit Name/ NTS	Commodity	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
Maricona Prospect Slater Tp 41N/2	Cu	267 986 T @ 1.17% Cu reserves in 3 sections		MDC 12	
Pancake Lake Kincaid Tp 41N/2	Cu	L-300' by W-21.5' by D-200' @ 0.76% Cu (drill indicated)		MR 1087	
Tribag Mine Nicolet Tp 41N/2	Cu, W, Ag, Au	2 267 961 T @ 1.6% Cu – Breton Zone 113 397 092 T @ 0.13% Cu, 0.27% Mo – East Breccia Zone 429 688 T @ 1.6% Cu – West Breccia 929 864 T @ 2.3% Cu – H Zone 907 184 T @ 0.2% W in Tailings – H Zone	Channel I	MR 1087 MDC 12	Past Producer 1967-1973 Production from Breton and West Breccia Zones

ACKNOWLEDGEMENTS

Information on past activities reported in the text are from assessment files and other files of the Sault Ste. Marie District Geologist Office unless otherwise noted. Information on current mining and exploration activities was provided by individual prospectors and exploration and mining company personnel, compiled from assessment files and obtained from public information sources.

REFERENCES

Annells, R.N. 1973. Proterozoic flood basalts of eastern Lake Superior: the Keweenawan volcanic rocks of the Mamainse Point area, Ontario; Geological Survey of Canada, Paper 72-10, 51p.

Atkinson, B.T., Hailstone, M., Seim, G., Wilson, A.C., Draper, D.M., Bulman, V.J., Pace, A. 2005. Report of Activities 2004, Resident Geologist Program, Timmins Regional Resident Geologist Report: Timmins and Sault Ste. Marie DistrictsOntario Geological Survey, Open File Report 6149, 93p.

Bennett, G. and Leahy, E.J. 1980. 1979 Report of the Sault Ste. Marie Resident Geologist; in Annual Report of the Regional and Resident Geologists 1979; Ontario Geological Survey, Miscellaneous Paper 91, p.97-102.

Bennett, G. 1982. 1981 Report of the Sault Ste. Marie Resident Geologist; in Annual Report of the Regional and Resident Geologists 1981, Ontario Geological Survey, Miscellaneous Paper 101, p. 127-138.

Bennett, G. 1983. 1982 Report of the Sault Ste. Marie Resident Geologist; in Report of Activities Regional and Resident Geologists 1982, Ontario Geological Survey, Miscellaneous Paper 107, p.141-151.

Bennett, G., Leahy, E.J. and Booth, K.D. 1985. Sault Ste. Marie Resident Geologist Area, Northeastern Region; in Report of Activities Regional and Resident Geologists 1984, Ontario Geological Survey, Miscellaneous Paper 122, p.209-229.

Bennett, G., Leahy, E.J., Donald, J.P., Frey, E., Kral, J.J. and Tortosa, D.J.J. 1986. Sault Ste. Marie Resident Geologist Area, Northeastern Region; in Report of Activities Regional and Resident Geologists 1985, Ontario Geological Survey, Miscellaneous Paper 128, p.238-255.

Bennett, G., Leahy, E.J., Donald, J.P., Frey, E., Kral, J.J. and Tortosa, D.J.J. 1987. Sault Ste. Marie Resident Geologist Area, Northeastern Region; in Report of Activities Regional and Resident Geologists 1986, Ontario Geological Survey, Miscellaneous Paper 134, p.233-255.

Bennett, G., Leahy, E.J. and Walmsley, J. 1992. Sault Ste. Marie Resident Geologist's District—1991; in Report of Activities Regional and Resident Geologists 1991, Ontario Geological Survey, Miscellaneous Paper 158, p.215-228.

Bennett, G., Leahy E.J., Walmsley, J. and Hailstone, M. 1993. Sault Ste. Marie Resident Geologist's District—1992; *in* Annual Report of Activities Regional and Resident Geologist 1992, Ontario Geological Survey, Miscellaneous Paper 161, p.207-232.

Bennett, G., Hailstone, M. and Fremlin, B. 1995. Sault Ste. Marie Resident Geologist's District—1994; *in* Report of Activities Resident Geologists 1994 Ontario Geological Survey, Open File Report 5921, p.231-256.

Giblin, P. 1973. Batchewana, Algoma District; Ontario Department of Mines, Map 2251, scale 1:63 360.

Giblin, P. 1969. Mamainse Point area; Ontario Department of Mines, Preliminary Geological Map No. P.554.

Hailstone, M., Atkinson, B.T. and Farrow, D. 2001. Timmins Regional Resident Geologist (Sault Ste. Marie District)—2000; *in* Report of Activities 2000, Timmins Regional Resident Geologist Report: Timmins and Sault Ste. Marie Districts, Ontario Geological Survey, Open File Report 6050, 108p.

Hailstone, M. and Morra, P. 1998. Sault Ste. Marie, District Geologist—1997; *in* Report of Activities 1997, Timmins Regional Resident Geologist Report: Timmins and Sault Ste. Marie Districts, Ontario Geological Survey, Open File Report 5972, 82p.

Heslop J.B. 1970. Geology, mineralogy and textural relationships of the Coppercorp Deposit, Mamainse Point area, Ontario; unpublished MSc thesis, Carlton University, Ottawa, Ontario.

Lightfoot, C.P., Sage, R.P., Doherty, W., Naldrett, A.J. and Sutcliffe, R.H. 1999. Mineral potential of Proterozoic Keweenawan intrusions: implications of major and trace element geochemical data from bimodal mafic and felsic volcanic sequences of Mamainse Point and the Black Bay Peninsula, Ontario; Ontario Geological Survey, Open File Report 5998, 91p.

Richards, J.P. 1986. A fluid inclusion and stable isotope study of Keweenawan fissure-vein hosted copper sulphide mineralization, Mamainse Point, Ontario; unpublished MSc thesis, University of Toronto, Toronto, Ontario.

Rupert, R.J. 1972. Sault Ste. Marie District; *in* Annual Report of Resident Geologists' Section, Geological Branch, 1971, Miscellaneous Paper 50, p.93-118.

Rupert, R.J. 1973. Sault Ste. Marie District; *in* Annual Report of Resident Geologists' Section, Geological Branch, 1972, Ontario Division of Mines, Miscellaneous Paper 54, p.79-97.

Siragusa, G.M. 1986. Geology of the Batchewana–Pangis area, District of Algoma; Ontario Geological Survey, Report 243, 56p.

Sutcliffe, R. H. and Bennett, G.1992. Proterozoic geology of the Great Lakes region: a deformed craton margin and the Midcontinental Rift; *in* Geology of Ontario, Ontario Geological Survey, Special Volume 4, Part 2, p.1294-1299.

Tortosa, D. and Moss, R. 2004. Geology and exploration of the Coppercorp property, Sault Ste. Marie Mining Division, Ontario, technical report for Nikos Exploration Ltd., Sault Ste. Marie District Geologist's Office MDNM Assessment Files.

Metric Conversion Table

Conversion from SI to Imperial			Conversion from Imperial to SI		
SI Unit	*Multiplied by*	*Gives*	*Imperial Unit*	*Multiplied by*	*Gives*
		LENGTH			
1 mm	0.039 37	inches	1 inch	**25.4**	mm
1 cm	0.393 70	inches	1 inch	**2.54**	cm
1 m	3.280 84	feet	1 foot	**0.304 8**	m
1 m	0.049 709	chains	1 chain	20.116 8	m
1 km	0.621 371	miles (statute)	1 mile (statute)	**1.609 344**	km
		AREA			
1 cm^2	0.155 0	square inches	1 square inch	**6.451 6**	cm^2
1 m^2	10.763 9	square feet	1 square foot	**0.092 903 04**	m^2
1 km^2	0.386 10	square miles	1 square mile	2.589 988	km^2
1 ha	2.471 054	acres	1 acre	0.404 685 6	ha
		VOLUME			
1 cm^3	0.061 023	cubic inches	1 cubic inch	**16.387 064**	cm^3
1 m^3	35.314 7	cubic feet	1 cubic foot	0.028 316 85	m^3
1 m^3	1.307 951	cubic yards	1 cubic yard	0.764 554 86	m^3
		CAPACITY			
1 L	1.759 755	pints	1 pint	0.568 261	L
1 L	0.879 877	quarts	1 quart	1.136 522	L
1 L	0.219 969	gallons	1 gallon	**4.546 090**	L
		MASS			
1 g	0.035 273 962	ounces (avdp)	1 ounce (avdp)	28.349 523	g
1 g	0.032 150 747	ounces (troy)	1 ounce (troy)	**31.103 476 8**	g
1 kg	2.204 622 6	pounds (avdp)	1 pound (avdp)	**0.453 592 37**	kg
1 kg	0.001 102 3	tons (short)	1 ton (short)	**907.184 74**	kg
1 t	1.102 311 3	tons (short)	1 ton (short)	**0.907 184 74**	t
1 kg	0.000 984 21	tons (long)	1 ton (long)	**1016.046 908 8**	kg
1 t	0.984 206 5	tons (long)	1 ton (long)	**1.016 046 90**	t
		CONCENTRATION			
1 g/t	0.029 166 6	ounce (troy)/ ton (short)	1 ounce (troy)/ ton (short)	34.285 714 2	g/t
1 g/t	0.583 333 33	pennyweights/ ton (short)	1 pennyweight/ ton (short)	1.714 285 7	g/t

OTHER USEFUL CONVERSION FACTORS

	Multiplied by	
1 ounce (troy) per ton (short)	31.103 477	grams per ton (short)
1 gram per ton (short)	0.032 151	ounces (troy) per ton (short)
1 ounce (troy) per ton (short)	20.0	pennyweights per ton (short)
1 pennyweight per ton (short)	0.05	ounces (troy) per ton (short)

Note: Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries, published by the Mining Association of Canada in co-operation with the Coal Association of Canada.

ISSN 1484-947X
ISBN 1-4249-0312-2